

SUPERMICR<sup>®</sup>

# Dual-Core Opteron



**Server Building Block Solutions<sup>®</sup>**

**Your Best Server/Workstation Partner**

**Serverboard · Chassis · Power Supply · Thermal Management**

**Building Block Solutions<sup>®</sup> January 2006**

# 1U Dual Opteron/Dual-Core High-Capacity SATA Server

1U IPMI 2.0 slot with optional 3rd LAN port

Dual Gigabit Ethernet ports

AMD 8111 I/O Hub

AMD 8132 PCI-X Tunnel

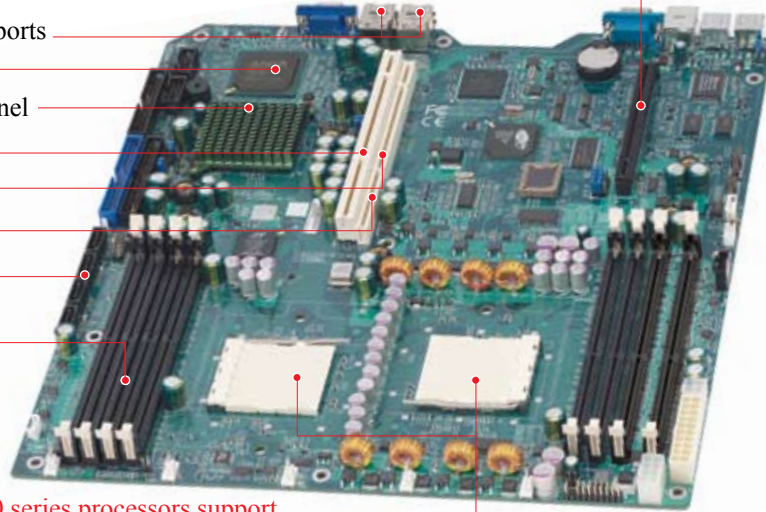
1 PCI-X 133MHz

1 PCI-X 133MHz

ZCR support

4 SATA ports

Up to 16GB DDR400  
SDRAM in 8 DIMMs



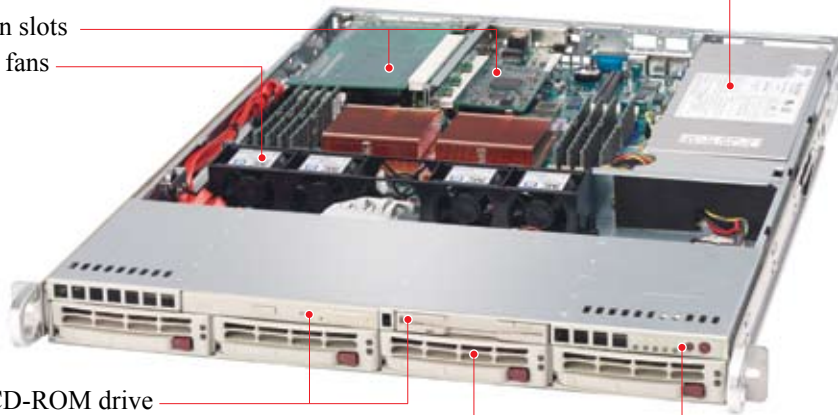
**H8DAR-T**

Dual-Core Opteron 200 series processors support

500W cold-swap supply with I<sup>2</sup>C for remote thermal management

2 PCI-X expansion slots

4 counter-rotating fans



1 FDD & 1 slim CD-ROM drive

4 x 1" hot-swap Serial ATA drive bays

Power Switch, reset button & 5 LED indicators

**SC813T+-500**

## Riser Card Configuration for A+ Series Motherboards



Model Part#	CSE-RR1U-X	CSE-RR1U-XLP	CSE-RR1U-XR	CSE-RR1U-EL	CSE-RR1U-ELP	CSE-RR1U-ER
Form Factor	1U	1U	1U	1U	1U	1U
Fit Type	PCI-X	PCI-X	PCI-X	Universal PCI	Universal PCI	Universal PCI
Output Type	PCI-X	PCI-X low-profile	PCI-X	PCI-Express	PCI-Express	PCI-Express
Speed Type	133/100/66/33MHz	133/100/66/33MHz	133/100/66/33MHz	PCI-Express x8	PCI-Express x8 low-profile	PCI-Express x8
Position	Left slot	Right slot	Right slot	Left slot	Right slot	Right slot
Chassis	SC811, SC812, SC813, SC814	SC812, SC813	SC814, SC816	SC811, SC812, SC813, SC814	SC812, SC813	SC814, SC816

# Quad Dual-Core Opteron Solution

## Quad AMD Opteron 800 Series Processor Support

1U optimized fan & air shroud

SATA2 (3Gbps) in 4 ports

nVidia nForce Pro 2200 & AMD 8132 PCI-X tunnel

IPMI 2.0 Remote Management socket

High speed HyperTransport Connector

16 DIMM sockets for up to 32/64/64GB of ECC Reg. DDR 400/333/266 memory

**H8QC8+**

Full Length PCI-Expansion slot

Heavy-duty counter-rotating fans with air-shroud

1000W High-performance Power Supply

3 x 1" hot-swap Ultra320 SCSI drive bays, slim DVD-ROM, and optional slim floppy,

**SC818S-1000**

## Zero Channel RAID Card

## Heatsinks



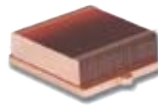
AOC-LPZCR1  
(SCSI & SATA all-in-one)



AOC-SOZCR1  
(SCSI & SATA all-in-one)



AOC-2020SA  
(SATA)



SNK-P0012  
1U passive heatsink



SNK-P0013  
Passive heatsink for  
2U and above



SNK-P0014AP(4)  
3(4)-wire active heatsink  
for 4U and tower



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Model	H8DA8/H8DAE	H8DC8/H8DCi	H8DCE	H8DCE-HTe	H8QC8/H8QCE H8QC8+*/H8QCE+*
Processor	Dual-Core AMD Opteron 200 Series	Dual-Core AMD Opteron 200 Series	Dual-Core AMD Opteron 200 Series	Dual-Core AMD Opteron 200 Series	Dual-Core AMD Opteron 800 Series
Chipset	AMD 8131 PCI-X Tunnel AMD 8111 I/O Hub	nVidia nForce Pro 2200 nVidia nForce Pro 2050 AMD 8132 PCI-X Tunnel	nVidia nForce Pro 2200 nVidia nForce Pro 2050	nVidia nForce Pro 2200 nVidia nForce Pro 2050	nVidia nForce Pro 2200 AMD 8132 PCI-X Tunnel
Form Factor	E. ATX 12" x 13.05"	E. ATX 12" x 13.05"	E. ATX 12" x 13.05"	E. ATX 12" x 13.05"	SWTX 16" x 13"
Optimized Chassis	H8DA8: 2U: SC823S-R500LP/550LP 3U: SC933S1-R760/SC933S2-R760 SC833S-R760/550 4U: SC743S1-R760/550 H8DAE: 2U: SC823i-550LP 4U: SC743i-R760/650	4U: SC743S-645 SC743i-645 Mid-tower: SC733i-645	4U: SC743T-645 Mid-tower: SC733T-645	1U: SC813T-500C-HTe 4U: SC743T-645 Mid-tower: SC733T-645	H8QC8+: 1U: SC818S-1000 H8QC8: 4U: SC748S-R1000
Memory Capacity & Slots	16/32/32 GB ECC Reg. DDR400/333/266 SDRAM in 8 DIMMs	16/32/32 GB ECC Reg. DDR400/333/266 SDRAM in 8 DIMMs	16/32/32 GB ECC Reg. DDR400/333/266 SDRAM in 8 DIMMs	16/32/32 GB ECC Reg. DDR400/333/266 SDRAM in 8 DIMMs	32/64/64 GB ECC Reg. DDR400/333/266 SDRAM in 16 DIMMs
Expansion Slots	2 64-bit PCI-X 133/100 MHz 2 64-bit PCI-X 66 2 32-bit PCI	2 PCI-Express x16 1 PCI-Express x4 (using x8 slot) 2 64-bit PCI-X 133/100 MHz 1 64-bit PCI-X 100 MHz 1 32-bit PCI	2 PCI-Express x16 2 PCI-Express x4 (using x8 slot) 1 32-bit PCI	1 HyperTransport connector 2 PCI-Express x16 1 PCI-Express x4 (using x8 slot) 3 32-bit PCI	1 HyperTransport connector 1 PCI-Express x8 1 PCI-Express x8 (using x16 slot) 2 64-bit PCI-X 133/100 MHz 2 64-bit PCI-X 100 MHz
Onboard SCSI/SATA/SATA RAID	Adaptec 7902W dual-channel Ultra320 SCSI w/host RAID (H8DA8 only)	Adaptec 7902W dual-channel Ultra320 SCSI w/host RAID (H8DC8 only) nVidia nForce Pro 2200 SATA (3 Gbps) controller for 4 SATA	nVidia nForce Pro 2200 & 2050 SATA (3 Gbps) controller for 8 SATA ports nVidia RAID 2.0	nVidia nForce Pro 2200 & 2050 SATA (3 Gbps) controller for 8 SATA ports nVidia RAID 2.0	Adaptec 7902W dual-channel Ultra320 SCSI w/host RAID (H8QC8 only) nVidia nForce Pro 2200 SATA (3 Gbps) controller for 4 SATA
Zero Channel RAID ZCR card support	AOC-LPZCR1 (H8DA8 only)	AOC-LPZCR1 (H8DC8 only)	N/A	N/A	AOC-LPZCR1 (H8QC8 only)
Onboard LAN	Dual LAN with Broadcom 5704 Gigabit Ethernet	Dual LAN with nVidia nForce Pro 2200 & 2050 Gigabit Ethernet	Dual LAN with nVidia nForce Pro 2200 & 2050 Gigabit Ethernet	Dual LAN with nVidia nForce Pro 2200 & 2050 Gigabit Ethernet	Dual LAN with Intel 82546GB Gigabit Ethernet
Onboard VGA	ATI Rage XL 8MB PCI graphics controller	N/A	N/A	ATI Rage XL 8MB PCI graphics controller	ATI Rage XL 8MB PCI graphics controller
Built-in EIDE/ USB ports	Dual ATA133/100 Up to 5 USB 1.1 ports	Dual ATA133/100 Up to 8 USB 2.0 ports	Dual ATA133/100 Up to 8 USB 2.0 ports	Dual ATA133/100 Up to 6 USB 2.0 ports	Dual ATA133/100 Up to 4 USB 2.0 ports
Other Onboard I/O Devices	1 floppy port 2 fast UART 16550 serial PS/2 mouse & keyboard conn.	1 floppy port 1 ECP/EPP parallel port 2 fast UART 16550 serial PS/2 mouse and keyboard conn. AC'97 audio CODEC high quality 6-channel sound Front-side audio header	1 floppy port 1 ECP/EPP parallel port 2 fast UART 16550 serial PS/2 mouse and keyboard conn. AC'97 audio CODEC high quality 6-channel sound Front-side audio header	1 floppy port 1 ECP/EPP parallel port 2 fast UART 16550 serial PS/2 mouse and keyboard conn. AC'97 audio CODEC high quality 6-channel sound Front-side audio header	1 floppy port 2 fast UART 16550 serial 1 ECP/EPP parallel port PS/2 mouse & keyboard conn.
Manageability	1U/Low-profile IPMI 2.0 slot, Watch Dog, SuperDoctor III	Watch Dog, SuperDoctor III	Watch Dog, SuperDoctor III	1U/Low-profile IPMI 2.0 slot, Watch Dog, SuperDoctor III	IPMI 2.0 socket, Watch Dog, SuperDoctor III
PC Health Monitoring	Monitors CPU core voltages, 3.3V, +5V, +12V, -12V, 3.3V standby, Hyper Transport voltage 1.2V, memory voltage 2.5V, DDR termination 1.25V, chipset voltage 1.8V, and total of 8-fan status, supports system management utility, chassis intrusion header	Monitors CPU core voltages, 3.3V, +5V, +12V, -12V, 3.3V standby, Hyper Transport voltage 1.2V, memory voltage 2.5V, nVidia nForce Pro 2200 & 2050 voltage 1.5V, and total of 8-fan status, supports system management utility, chassis intrusion header	Monitors CPU core voltages, 3.3V, +5V, +12V, -12V, 3.3V standby, Hyper Transport voltage 1.2V, memory voltage 2.5V, nVidia nForce Pro 2200 & 2050 voltage 1.5V, and total of 8-fan status, supports system management utility, chassis intrusion header	Monitors CPU core voltages, 3.3V, +5V, +12V, -12V, 3.3V standby, Hyper Transport voltage 1.2V, memory voltage 2.5V, nVidia nForce Pro 2200 & 2050 voltage 1.5V, and total of 8-fan status plus 2 chipset fan status, supports system management utility, chassis intrusion header	Monitors CPU core voltages, +5V, +12V, -12V, VBAT, total of 8-fan status, supports system management utility, chassis intrusion header
Thermal Control	Fan speed control & overheat LED indication	Fan speed control & overheat LED indication	Fan speed control & overheat LED indication	Fan speed control & overheat LED indication	Fan speed control & overheat LED indication
Other Features	ACPI/API power management, internal/external modem ring- on, WOL, control of power-on mode for recovery from AC power loss	ACPI/API power management, internal/external modem ring- on, WOL, control of power-on mode for recovery from AC power loss & S3 STR support	ACPI/API power management, internal/external modem ring- on, WOL, control of power-on mode for recovery from AC power loss & S3 STR support	ACPI/API power management, internal/external modem ring- on, WOL, control of power-on mode for recovery from AC power loss & S3 STR support	ACPI/API power management, internal/external modem ring- on, WOL, control of power-on mode for recovery from AC power loss
BIOS	AMI 4 Mb Flash ROM	AMI 8 Mb Flash ROM	AMI 4 Mb Flash ROM	AMI 8 Mb Flash ROM	AMI 8 Mb Flash EEPROM

\* (+) versions are optimized for 1U chassis with PCI-X slots removed

# Optimized Chassis Highlights



## SUPER SC743S1-R760/650

- 8 hot-swap SCA bays
- Triple 760W redundant power/650W w/1°C mgt.
- 6 hot-swap fans for 100% cooling redundancy
- Tool-less PCI-X/E & rotatable drive bay module
- 4U x 25.5"/Tower



## SUPER SC743S1-645

- 8 hot-swap SCA bays
- 90-degree rotatable drive bay module
- 645W low-noise power supply
- Hot-swap redundant PWM cooling fans
- 4U x 25.5"/Tower



## SUPER SC733T-645

- 4 hot-swap SATA bays
- 2 5.25" expansion bays
- 645W low-noise power supply
- Low-noise PWM cooling fans
- 7" x 17." x 25.5"/Mid Tower



## SUPER SC823S-R500LP

- 6 hot-swap SCA bays
- Redundant 500W power w/1°C mgt.
- 4 high-performance hot-swap fans
- 7 low-profile PCI/X expansion slots
- 2U x 25.5"



## SUPER SC833S-R760

- 8 hot-swap SCA bays (SAF-TE compliant)
- Triple redundant 760W power w/1°C mgt.
- 6 hot-swap fans for 100% cooling redundancy
- Air-shroud for optimal cooling
- 3U x 25.5"

## Key Features & Accessories

MB Chassis	H8DA8/E	H8DC8/i	H8DCE	Fan Setting
SC743 Series	<p>SC743S1-R760/650 (SCSI) SC743i-R760/650 (IDE)</p> <p><b>100% Cooling and Power Redundancy</b></p> <ul style="list-style-type: none"> <li>• 4U/Tower convertible</li> <li>• 8 hot-swap SCA/8 fixed drive bays</li> <li>• Triple 760W/650W redundant cooling</li> <li>• <b>Passive heatsink*: SNK-P0013</b></li> </ul>	<p>SC743S1-645 (SCSI) SC743i-645 (IDE)</p> <p><b>100% Cooling and Low Noise</b></p> <ul style="list-style-type: none"> <li>• 4U/Tower convertible</li> <li>• 8 hot-swap SCA/8 fixed drive bays</li> <li>• Low noise 645W</li> <li>• <b>Active heatsink*: SNK-P0014P4</b></li> </ul>	<p>SC743T-645 (SATA) SC743i-645 (IDE)</p> <p><b>100% Cooling and Low Noise</b></p> <ul style="list-style-type: none"> <li>• 4U/Tower convertible</li> <li>• 8 hot-swap SATA/8 fixed drive bays</li> <li>• Low noise 645W</li> <li>• <b>Active heatsink*: SNK-P0014AP4</b></li> </ul>	<p>SC743S/i-R760/650: 3-pin Server</p> <p>SC743S/T/i-645: 4-pin Workstation</p>
SC833 Series	<p>SC833S-R760/550 (SCSI)</p> <p><b>100% Cooling and Power Redundancy</b></p> <ul style="list-style-type: none"> <li>• 8 hot-swap SCA drive bays</li> <li>• Triple redundant 760W/550W</li> <li>• <b>Passive heatsink*: SNK-P0013</b></li> </ul>	N/A	N/A	3-pin Server
SC823 Series	<p>SC823S-R500LP/550LP (SCSI) SC823i-550LP (IDE)</p> <p><b>High-performance and Power Redundancy</b></p> <ul style="list-style-type: none"> <li>• 6 hot-swap SCA/6 fixed drive bays</li> <li>• Redundant 500W/550W</li> <li>• 7 low-profile expansion slots</li> <li>• <b>Passive heatsink*: SNK-P0013</b></li> <li>• <b>Air shroud*: CSE-PT83</b></li> </ul>	N/A	N/A	3-pin Server
SC733 Series	N/A	<p>SC733i-645 (IDE)</p> <p><b>Low Noise and Cost Effective</b></p> <ul style="list-style-type: none"> <li>• 4 fixed drive bays</li> <li>• Low noise 645W</li> <li>• <b>Active heatsink*: SNK-P0014PA4</b></li> </ul>	<p>SC733T-645 (SATA)</p> <p><b>Low Noise and Cost Effective</b></p> <ul style="list-style-type: none"> <li>• 4 hot-swap SATA drive bays</li> <li>• Low noise 645W</li> <li>• <b>Active heatsink*: SNK-P0014PA4</b></li> </ul>	4-pin Workstation

\* Sold separately



Model	H8DAR-8/H8DAR-i	H8DAR-T/H8DAR-E	H8DSR-8/H8DSR-i	H8DSP-8/H8DSP-i H8SSP-8*/H8SSP-i*	H8SSL-i
Processor	Dual-Core AMD Opteron 200 Series	Dual-Core AMD Opteron 200 Series	Dual-Core AMD Opteron 200 Series	Dual-Core AMD Opteron 200 Series	Dual-Core AMD Opteron 100 Series (939-pin)
Chipset	AMD 8131 PCI-X Tunnel AMD 8111 I/O Hub	AMD 8132 PCI-X Tunnel AMD 8111 I/O Hub	ServerWorks HT2000 ServerWorks HT1000	ServerWorks HT2000 ServerWorks HT1000	ServerWorks HT1000
Form Factor	E. ATX 12" x 13.05"	E. ATX 12" x 13.05"	E. ATX 12" x 13.05"	Proprietary 16.24" x 11.24"	ATX 12" x 8"
Optimized Chassis	H8DAR-8: IU: SC813S-500C SC812S-420C H8DAR-i IU: SC812i-420C SC812L-420C	H8DAR-T: IU: SC813T+-500 H8DAR-E: IU: SC813i+-500	H8DSR-8: IU: SC813S+-500 H8DSR-i: IU: SC813i+-500	H8DSP-8: IU: SC816S-(R)700 (OEM only) H8DSP-i IU: SC816T-(R)700 (OEM only) H8SSP-8: IU: SC816S-(R)400 (OEM only) H8SSP-i IU: SC816T-(R)400 (OEM only)	IU: SC512L-260 SC512C-260 SC811FT-260 (OEM only)
Memory Capacity & Slots	16/32/32 GB ECC Reg. DDR400/333/266 SDRAM in 8 DIMMs	16/32/32 GB ECC Reg. DDR400/333/266 SDRAM in 8 DIMMs	16/32/32 GB ECC Reg. DDR400/333/266 SDRAM in 8 DIMMs	16/32/32 GB ECC Reg. DDR400/333/266 SDRAM in 8 DIMMs (H8DSP series) 8/16/16 GB ECC Reg. DDR400/333/266 SDRAM in 4 DIMMs (H8SSP series)	8 GB ECC Unbuffered DDR400/333 SDRAM in 4 DIMMs
Expansion Slots	1 64-bit PCI-X 100 MHz	2 64-bit PCI-X 133/100 MHz	1 Universal PCI-X 133 MHz or 1 PCI-Express x8 (low-profile) 1 Universal PCI-X 100 MHz or 1 PCI-Express x8	1 Universal PCI-X 133 MHz or 1 PCI-Express x8 1 Universal PCI-X 100 MHz or 1 PCI-Express x8 (low-profile)	1 64-bit PCI-X 133 MHz 2 32-bit PCI
Onboard SCSI/ SATA/SATA RAID	Adaptec 7902W dual-channel Ultra320 SCSI w/host RAID (H8DAR-8 only)	Marvell 88SX6041 controller for 4 SATA ports (H8DAR-T only)	Adaptec 7902W dual-channel Ultra320 SCSI w/host RAID (H8DSR-8 only) ServerWorks HT1000 for 4 SATA ports	Adaptec 7902W dual-channel Ultra320 SCSI w/host RAID (H8DSP-8 and H8SSP-8 only) ServerWorks HT1000 for 4 SATA ports	ServerWorks HT1000 for 4 SATA ports
Zero Channel RAID ZCR card support	AOC-SOZCR1 (H8DAR-8 only)	AOC-LPZCR1, AOC-2020SA (H8DAR-T only)	AOC-LPZCR1 (H8DSR-8 only)	AOC-LPZCR1 (H8DSP-8 and H8SSP-8 only)	N/A
Onboard LAN	Dual LAN with Broadcom 5704 Gigabit Ethernet	Dual LAN with Broadcom 5704 Gigabit Ethernet	Dual LAN with ServerWorks HT2000 Gigabit Ethernet	Dual LAN with ServerWorks HT2000 Gigabit Ethernet	Dual LAN with Broadcom 5704 Gigabit Ethernet
Onboard VGA	ATI Rage XL 8MB PCI graphics controller	ATI Rage XL 8MB PCI graphics controller	ATI Rage XL 8MB PCI graphics controller	ATI Rage XL 8MB PCI graphics controller	ATI Rage XL 8MB PCI graphics controller
Built-in EIDE/ USB ports	Dual ATA133/100 Up to 5 USB 1.1 ports	Dual ATA133/100 Up to 5 USB 1.1 ports	Single ATA100 Up to 4 USB 2.0 ports	Single ATA100 Up to 4 USB 2.0 ports	Single ATA100 Up to 4 USB 2.0 ports
Other Onboard I/O Devices	1 floppy port 2 fast UART 16550 serial PS/2 mouse & keyboard conn.	1 floppy port 2 fast UART 16550 serial PS/2 mouse & keyboard conn.	1 floppy port 2 fast UART 16550 serial PS/2 mouse & keyboard conn.	1 floppy port 2 fast UART 16550 serial PS/2 mouse & keyboard conn.	1 floppy port 2 fast UART 16550 serial PS/2 mouse & keyboard conn.
Manageability	IU IPMI 2.0 slot, Watch Dog, SuperDoctor III	IU IPMI 2.0 slot, Watch Dog, SuperDoctor III	IU IPMI 2.0 slot, Watch Dog, SuperDoctor III	IU IPMI 2.0 slot, Watch Dog, SuperDoctor III	IU IPMI 2.0 slot, Watch Dog, SuperDoctor III
PC Health Monitoring	Monitors CPU core voltages, 3.3V, +5V, +12V, -12V, 3.3V standby, Hyper Transport voltage 1.2V, memory voltage 2.5V, DDR termination 1.25V, chipset voltage 1.8V, and total of 5-fan status, supports system management utility, chassis intrusion header	Monitors CPU core voltages, 3.3V, +5V, +12V, -12V, battery voltage, total of 5-fan status, supports system management utility, chassis intrusion header	Monitors CPU core voltages, +5V, +12V, -12V, 5V standby, 2.5V standby, VBAT, Hyper Transport voltage 1.2V, memory voltage 2.5V, DDR termination 1.25V, and total of 5-fan status, supports system management utility, chassis intrusion header	Monitors CPU core voltages, +5V, +12V, -12V, 5V standby, 2.5V standby, VBAT Hyper Transport voltage 1.2V, memory voltage 2.5V, DDR termination 1.25V, and total of 10-fan status, supports system management utility, chassis intrusion header	Monitors CPU core voltages, +5V, +12V, -12V, 5V standby, 2.5V standby, VBAT Hyper Transport voltage 1.2V, DDR termination 1.25V, and total of 5-fan status, supports system management utility, chassis intrusion header
Thermal Control	Fan speed control & overheat LED indication	Fan speed control & overheat LED indication	Fan speed control & overheat LED indication	Fan speed control & overheat LED indication	Fan speed control & overheat LED indication
Other Features	ACPI/API power management, internal/external modem ring- on, WOL, control of power-on mode for recovery from AC power loss	ACPI/API power management, internal/external modem ring- on, WOL, control of power-on mode for recovery from AC power loss	ACPI/API power management, internal/external modem ring- on, WOL, control of power-on mode for recovery from AC power loss	ACPI/API power management, internal/external modem ring- on, WOL, control of power-on mode for recovery from AC power loss	ACPI/API power management, internal/external modem ring- on, WOL, control of power-on mode for recovery from AC power loss
BIOS	AMI 4 Mb Flash ROM	AMI 4 Mb Flash ROM	AMI 8 Mb Flash ROM	AMI 8 Mb Flash ROM	AMI 4 Mb Flash ROM

\* H8SSP series only support single 940-pin Opteron CPU. Please visit website for image and detail.

# Optimized Chassis Highlights



## SUPER SC813S-500C

- 4 hot-swap SCA bays
- 500W cold swap power supply w/I<sup>2</sup>C mgt.
- 1 PCI-X slot
- 1 slim CD & 1 slim floppy drive
- 1U x 25.6"



## SUPER SC813T+-500

- 4 hot-swap SATA bays
- 500W cold swap power supply w/I<sup>2</sup>C mgt.
- 2 PCI-X slots
- 1 slim CD & 1 slim floppy drive
- 1U x 25.6"



## SUPER SC812S-420C

- 3 hot-swap SCA bays
- Powerful 420W power supply
- 1 PCI-X slot
- 1 slim CD & 1 slim floppy drive
- 1U x 25.6"



## SUPER SC811FT-260 (OEM only)

- 2 hot-swap SATA bays
- 260W power supply for single processor
- 2x 10cm blower fans for optimal cooling
- 1 PCI-X slot
- 1U x 22.6"



## SUPER SC512C-260

- Mini 1U for shallow racks
- 260W power supply for single processor
- 1x 10cm blower fan
- 1 PCI-X slot
- 1U x 14"

## Key Features & Accessories

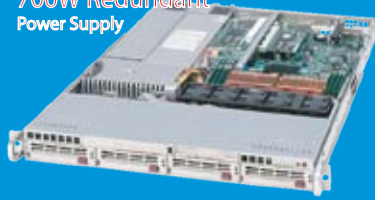
MB Chassis	H8DAR-8/i	H8DAR-T/E	H8DSR-8/i	H8SSL-i	Fan Setting
SC813 Series	<b>SC813S-500C (SCSI)</b> <b>High Performance and Storage</b> <ul style="list-style-type: none"> <li>• 4 hot-swap SCA</li> <li>• 500W cold-swap with I<sup>2</sup>C mgt.</li> <li>• 1U Passive heatsink*: SNK-P0012</li> <li>• 1U Riser cards*: CSE-RR1U-X</li> <li>• Air shroud*: CSE-PT82</li> </ul>	<b>SC813T+-500 (SATA)</b> <b>SC813i+-500 (IDE)</b> <b>High Performance and Storage</b> <ul style="list-style-type: none"> <li>• 4 hot-swap SATA/4 fixed</li> <li>• 500W cold-swap with I<sup>2</sup>C mgt.</li> <li>• 1U Passive heatsink*: SNK-P0012</li> <li>• 1U Riser cards*: CSE-RR1U-X, CSE-RR1U-XLP</li> <li>• Air shroud: CSE-PT70</li> </ul>	<b>SC813S+-500 (SCSI)</b> <b>SC813i+-500 (IDE)</b> <b>High Performance and Storage</b> <ul style="list-style-type: none"> <li>• 4 hot-swap SCA/4 fixed</li> <li>• 500W cold-swap with I<sup>2</sup>C mgt.</li> <li>• 1U Passive heatsink*: SNK-P0012</li> <li>• 1U Riser cards*: CSE-RR1U-X, CSE-RR1U-XLP</li> <li>• Air shroud: CSE-PT70</li> </ul>	N/A	3-pin Server
SC812 Series	<b>SC812S-420C (SCSI)</b> <b>SC812i-420C (IDE)</b> <b>SC812L-420C (IDE-internal)</b> <b>Versatile and Cost Effective</b> <ul style="list-style-type: none"> <li>• 3 hot-swap SCA/3 fixed/3 internal drive bays</li> <li>• 420W power supply</li> <li>• 1U Passive heatsink*: SNK-P0012</li> <li>• 1U Riser Cards*: CSE-RR1U-X</li> <li>• Air shroud*: CSE-PT82</li> </ul>	N/A	N/A	N/A	3-pin Server
SC811 Series	N/A	N/A	N/A	<b>SC811FT-260 (OEM only)</b> <b>Cost Effective</b> <ul style="list-style-type: none"> <li>• 2 hot-swap SATA</li> <li>• 260W power supply</li> <li>• 1U Passive heatsink*: SNK-P0012</li> <li>• 1U Riser cards*: CSE-RR1U-X</li> <li>• Air shroud*: CSE-PT0113</li> </ul>	3-pin Server
SC512 Series	N/A	N/A	N/A	<b>SC512C-260</b> <b>Mini 1U and Cost Effective</b> <ul style="list-style-type: none"> <li>• 1 internal 3.5" SATA</li> <li>• 260W power supply</li> <li>• 1U Passive heatsink*: SNK-P0012</li> <li>• 1U Riser cards*: CSE-RR1U-X</li> <li>• Rail kits*: CSE-PT8</li> <li>• Air shroud*: CSE-PT0112</li> </ul>	3-pin Server

\* Sold separately



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700W Redundant Power Supply



NEW!

700W Redundant Power Supply



Coming Soon!

1U Quad



	A+ Server 1020P-8R	A+ Server 1020P-TR	A+ Server 1040C-8
PROCESSOR SUPPORT	Dual-core AMD Opteron 200 series	Dual-core AMD Opteron 200 series	Dual-core AMD Opteron 800 series
KEY APPLICATIONS	High-end enterprise server, SQL server, high performance computer cluster (HPCC), explicitly parallel instruction computing (EPIC)	High-end enterprise server, SQL server, high performance computer cluster (HPCC), explicitly parallel instruction computing (EPIC)	Mission critical applications, enterprise server, large database, e-business, online transaction processing
OUTSTANDING FEATURES	4 SCA drive bays Universal PCI-X or PCI-Express 16 GB DDR 400 SDRAM 2 Gigabit Ethernet ports ZCR RAID supported 1U IPMI 2.0 w/ optional 3rd LAN 700W redundant power supply	4 SATA drive bays Universal PCI-X or PCI-Express 16 GB DDR 400 SDRAM 2 Gigabit Ethernet ports 1U IPMI 2.0 w/ optional 3rd LAN 700W redundant power supply	1U 4-way system 3 SCA drive bays 1 PCI-express x8 or HTX Up to 32 GB DDR 400 SDRAM 2 Gigabit Ethernet ports Powerful 1000W power supply
SERVERBOARD / CHIPSET	H8DSP-8 / HyperTransport ServerWorks HT2000 ServerWorks HT1000	H8DSP-i / HyperTransport ServerWorks HT2000 ServerWorks HT1000	H8QC8+ / HyperTransport nVidia nForce Pro 2200 AMD 8132 PCI-X Tunnel
SYSTEM MEMORY (Max.)	16/32 GB ECC Reg. DDR 400/333 SDRAM in 8 DIMM sockets	16/32 GB ECC Reg. DDR 400/333 SDRAM in 8 DIMM sockets	32/64 GB ECC Reg. DDR 400/333 SDRAM in 16 DIMM sockets
EXPANSION SLOTS	1 Universal PCI-X 133 MHz (full height) or 1 PCI-Express x8 1 Universal PCI-X 100 MHz (low-profile) or 1 PCI-Express x8	1 Universal PCI-X 133 MHz (full height) or 1 PCI-Express x8 1 Universal PCI-X 100 MHz (low-profile) or 1 PCI-Express x8	1 PCI-Express x8 or HyperTransport conn.
ONBOARD SCSI/SATA/IDE/RAID	Adaptec® 7902 2-channel Ultra320 SCSI	ServerWorks HT1000 for 4 SATA	Adaptec® 7902 2-channel Ultra320 SCSI
ZERO CHANNEL RAID SUPPORT	AOC-LPZCR1	N/A	N/A
ONBOARD LAN/VGA/AUDIO	Dual LAN with ServerWorks HT2000 Gigabit Ethernet controller ATI® Rage XL 8MB PCI graphics controller	Dual LAN with ServerWorks HT2000 Gigabit Ethernet controller ATI® Rage XL 8MB PCI graphics controller	Dual LAN with Intel 82546GB Gigabit Ethernet controller ATI® Rage XL 8MB PCI graphics controller
MANAGEMENT	1U IPMI 2.0 slot w/ optional 3rd LAN port, SuperDoctor III, Watch Dog	1U IPMI 2.0 slot w/ optional 3rd LAN port, SuperDoctor III, Watch Dog	IPMI 2.0 socket, SuperDoctor III, Watch Dog
INTERNAL STORAGE (Max.)	1.2 TB	1.6 TB	900 GB
DRIVE BAYS	4 x 1" hot-swap Ultra320/160 SCA drive bays (SAF-TE compliant)	4 x 1" hot-swap SATA drive bays	3 x 1" hot-swap Ultra320/160 SCA drive bays (SAF-TE compliant)
PERIPHERAL BAYS	1 slim DVD-ROM drive 1 slim floppy drive	1 slim DVD-ROM drive 1 slim floppy drive	1 slim DVD-ROM drive optional slim floppy drive
POWER SUPPLY	700W redundant power supply w/ 1 <sup>2</sup> C built-in	700W redundant power supply w/ 1 <sup>2</sup> C built-in	1000W
COOLING SYSTEM	4 x 4cm heavy duty counter-rotating fans w/ optimal fan speed control	4 x 4cm heavy duty counter-rotating fans w/ optimal fan speed control	6 x 4cm heavy duty counter-rotating fans w/ air shroud & optimal fan speed control
FORM FACTOR	1U Rackmount 437 x 43 x 686mm (17.2" x 1.7" x 27")	1U Rackmount 437 x 43 x 686mm (17.2" x 1.7" x 27")	1U Rackmount 448 x 44 x 760mm (17.64" x 1.7" x 29.9")



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A+ Server 1020A-T	A+ Server 1020A-8	A+ Server 1010S-MR	A+ Server 1010S-T
Dual-core AMD Opteron 200 series	Dual-core AMD Opteron 200 series	Dual-core AMD Opteron 100 series (939-pin)	Dual-core AMD Opteron 100 series (939-pin)
High-end enterprise server, SQL server, high performance computer cluster (HPCC), explicitly parallel instruction computing (EPIC)	High-end enterprise server, SQL server, high performance computer cluster (HPCC), explicitly parallel instruction computing (EPIC)	File/print server, firewall applications, mail server, web server for small business, server appliance, cluster node	File/print server, firewall applications, mail server, web server for small business, server appliance, cluster node
4 SATA drive bays 2 PCI-X 133/100 MHz 16 GB DDR 400 SDRAM 2 Gigabit Ethernet ports ZCR RAID supported 1U IPMI 2.0 w/ optional 3rd LAN 500W cold-swap power supply	3 SCA drive bays 1 PCI-X 100 MHz 16 GB DDR 400 SDRAM 2 Gigabit Ethernet ports ZCR RAID supported 1U IPMI 2.0 420W power supply	Optimized for shallow racks 1 PCI-X 133 MHz slot 8 GB DDR 400 SDRAM 2 Gigabit Ethernet ports 1U IPMI 2.0 slot Front USB 2.0 ports	2 SATA drive bays 1 PCI-X 133 MHz slot 8 GB DDR 400 SDRAM 2 Gigabit Ethernet ports 1U IPMI 2.0 slot
H8DAR-T / HyperTransport AMD 8132 PCI-X Tunnel AMD 8131 I/O Hub	H8DAR-8 / HyperTransport AMD 8131 PCI-X Tunnel AMD 8111 I/O Hub	H8SSL-i / HyperTransport ServerWorks HT1000	H8SSL-i / HyperTransport ServerWorks HT1000
16/32 GB ECC Reg. DDR 400/333 SDRAM in 8 DIMM sockets	16/32 GB ECC Reg. DDR 400/333 SDRAM in 8 DIMM sockets	8 GB ECC Unbuffered DDR 400 SDRAM in 4 DIMM sockets	8 GB ECC Unbuffered DDR 400 SDRAM in 4 DIMM sockets
2 64-bit PCI-X 133/100 MHz	1 64-bit PCI-X 100 MHz	1 64-bit PCI-X 133 MHz	1 64-bit PCI-X 133 MHz
Marvell 88SX6041 for 4 SATA	Adaptec® 7902 2-channel Ultra320 SCSI	ServerWorks HT1000 for 1 SATA	ServerWorks HT1000 for 2 SATA
AOC-LPZCR1 or AOC-2020SA	AOC-SOZCR1	N/A	N/A
Dual LAN with Broadcom 5704 Gigabit Ethernet controller ATI® Rage XL 8MB PCI graphics controller	Dual LAN with Broadcom 5704 Gigabit Ethernet controller ATI® Rage XL 8MB PCI graphics controller	Dual LAN with Broadcom 5704 Gigabit Ethernet controller ATI® Rage XL 8MB PCI graphics controller	Dual LAN with Broadcom 5704 Gigabit Ethernet controller ATI® Rage XL 8MB PCI graphics controller
1U IPMI 2.0 slot w/ optional 3rd LAN port, SuperDoctor III, Watch Dog	1U IPMI 2.0 slot, SuperDoctor III, Watch Dog	1U IPMI 2.0 slot, SuperDoctor III, Watch Dog	1U IPMI 2.0 slot, SuperDoctor III, Watch Dog
1.6 TB	900 GB	400 GB	800 GB
4 x 1" hot-swap SATA drive bays	3 x 1" hot-swap Ultra320/160 SCA drive bays (SAF-TE compliant)	1 x 3.5" internal drive bay	2 x 1" hot-swap SATA drive bays
1 slim CD-ROM drive 1 slim floppy drive	1 slim CD-ROM drive 1 slim floppy drive	1 slim CD-ROM drive 1 slim floppy drive	1 slim CD-ROM drive 1 floppy drive
500W cold-swap w/ I <sup>2</sup> C built-in	420W	260W	260W
4 x 4cm heavy duty counter-rotating fans w/ optimal fan speed control & air shroud	2 x 10cm heavy duty blowers w/ optimal fan speed control & air shroud	1 x 10cm heavy duty blower fan w/ air shroud & optimal fan speed control	2 x 4cm heavy duty counter-rotating fan w/ air shroud & optimal fan speed control
1U Rackmount 437 x 43 x 650mm (17.2" x 1.7" x 25.6")	1U Rackmount 437 x 43 x 650mm (16.8" x 1.7" x 25.6")	Mini 1U Rackmount 425 x 44 x 356mm (16.7" x 1.7" x 14")	1U Rackmount 425 x 44 x 574mm (16.7" x 1.7" x 22.6")



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400W Redundant Power Supply



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400W Redundant Power Supply



	A+ Server 1020S-8	A+ Server 1010P-8R	A+ Server 1010P-TR
PROCESSOR SUPPORT	Dual-core AMD Opteron 200 series	Dual-core AMD Opteron 200 series (Single Processor Support Only)	Dual-core AMD Opteron 200 series (Single Processor Support Only)
KEY APPLICATIONS	High-end enterprise server, SQL server, high performance computer cluster (HPCC), explicitly parallel instruction computing (EPIC)	High-end enterprise server, SQL server, high performance computer cluster (HPCC), explicitly parallel instruction computing (EPIC)	High-end enterprise server, SQL server, high performance computer cluster (HPCC), explicitly parallel instruction computing (EPIC)
OUTSTANDING FEATURES	4 SCA drive bays Universal PCI-X or PCI-Express 16 GB DDR 400 SDRAM 2 Gigabit Ethernet ports ZCR RAID supported 1U IPMI 2.0 w/ optional 3rd LAN 500W cold-swap power supply	4 SCA drive bays Universal PCI-X or PCI-Express 8 GB DDR 400 SDRAM 2 Gigabit Ethernet ports ZCR RAID supported 1U IPMI 2.0 w/ optional 3rd LAN 400W redundant power supply	4 SATA drive bays Universal PCI-X or PCI-Express 8 GB DDR 400 SDRAM 2 Gigabit Ethernet ports 1U IPMI 2.0 w/ optional 3rd LAN 400W redundant power supply
SERVERBOARD / CHIPSET	H8DSR-8 / HyperTransport ServerWorks HT2000 ServerWorks HT1000	H8SSP-8 / HyperTransport ServerWorks HT2000 ServerWorks HT1000	H8SSP-i / HyperTransport ServerWorks HT2000 ServerWorks HT1000
SYSTEM MEMORY (Max.)	16/32 GB ECC Reg. DDR 400/333 SDRAM in 8 DIMM sockets	8/16 GB ECC Reg. DDR 400/333 SDRAM in 4 DIMM sockets	8/16 GB ECC Reg. DDR 400/333 SDRAM in 4 DIMM sockets
EXPANSION SLOTS	1 Universal PCI-X 100 MHz (full height) or 1 PCI-Express x8 1 Universal PCI-X 133 MHz (low-profile) or 1 PCI-Express x8	1 Universal PCI-X 133 MHz (full height) or 1 PCI-Express x8 1 Universal PCI-X 100 MHz (low-profile) or 1 PCI-Express x8	1 Universal PCI-X 133 MHz (full height) or 1 PCI-Express x8 1 Universal PCI-X 100 MHz (low-profile) or 1 PCI-Express x8
ONBOARD SCSI/SATA/IDE/RAID	Adaptec® 7902 2-channel Ultra320 SCSI	Adaptec® 7902 2-channel Ultra320 SCSI	ServerWorks HT1000 for 4 SATA
ZERO CHANNEL RAID SUPPORT	AOC-LPZCR1	AOC-LPZCR1	N/A
ONBOARD LAN/VGA/AUDIO	Dual LAN with ServerWorks HT2000 Gigabit Ethernet controller ATI® Rage XL 8MB PCI graphics controller	Dual LAN with ServerWorks HT2000 Gigabit Ethernet controller ATI® Rage XL 8MB PCI graphics controller	Dual LAN with ServerWorks HT2000 Gigabit Ethernet controller ATI® Rage XL 8MB PCI graphics controller
MANAGEMENT	1U IPMI 2.0 slot w/ optional 3rd LAN port, SuperDoctor III, Watch Dog	1U IPMI 2.0 slot w/ optional 3rd LAN port, SuperDoctor III, Watch Dog	1U IPMI 2.0 slot w/ optional 3rd LAN port, SuperDoctor III, Watch Dog
INTERNAL STORAGE (Max.)	1.2 TB	1.2 TB	1.6 TB
DRIVE BAYS	4 x 1" hot-swap Ultra320/160 SCA drive bays (SAF-TE compliant)	4 x 1" hot-swap Ultra320/160 SCA drive bays (SAF-TE compliant)	4 x 1" hot-swap SATA drive bays
PERIPHERAL BAYS	1 slim CD-ROM drive 1 slim floppy drive	1 slim DVD-ROM drive 1 slim floppy drive	1 slim DVD-ROM drive 1 slim floppy drive
POWER SUPPLY	500W cold-swap w/ I <sup>2</sup> C built-in	400W redundant power supply w/ I <sup>2</sup> C built-in	400W redundant power supply w/ I <sup>2</sup> C built-in
COOLING SYSTEM	4 x 4cm heavy duty counter-rotating fans w/ optimal fan speed control & air shroud	3 x 4cm heavy duty counter-rotating fans w/ optimal fan speed control	3 x 4cm heavy duty counter-rotating fans w/ optimal fan speed control
FORM FACTOR	1U Rackmount 437 x 43 x 650mm (17.2" x 1.7" x 25.6")	1U Rackmount 437 x 43 x 686mm (17.2" x 1.7" x 27")	1U Rackmount 437 x 43 x 686mm (17.2" x 1.7" x 27")

Coming Soon!



A+ Server 2020A-8R	A+ Server 4020A-8R	A+ Workstation 4020C-T	A+ Server 4040C-8R
Dual-core AMD Opteron 200 series	Dual-core AMD Opteron 200 series	Dual-core AMD Opteron 200 series	Dual-core AMD Opteron 800 series
Business critical applications, front-end server, database applications, primary server for mid-size companies, internet, e-business, server clustering	Mission-critical applications, enterprise server, large database, e-business, Internet, online transaction processing, NAS	High-end workstation, business critical applications, front-end server, database applications, video server	High-end workstation, business critical applications, front-end server, database applications, video server
6 SCA drive bays 6 low profile PCI expansions 16 GB DDR 400 SDRAM 2 Gigabit Ethernet ports ZCR RAID support Low profile IPMI 2.0 slots 500W redundant power supply	100% cooling redundancy 8 SCA drive bays 16 GB DDR 400 SDRAM 2 Gigabit Ethernet ports ZCR RAID supported Low-profile IPMI 2.0 slot Triple redundant 760W + 380W	SuperQuiet mode 8 SATA drive bays 2 PCI-express x16 16 GB DDR 400 SDRAM 2 Gigabit Ethernet ports Low-noise 645W w/ fan speed control	Enterprise level 4-way system Up to 10 SCA drive bays 2 PCI-express x8 or Hypertransport Up to 32 GB DDR 400 SDRAM 2 Gigabit Ethernet ports Triple redundant 1000W power supply
H8DA8 / HyperTransport AMD 8131 PCI-X Tunnel AMD 8111 I/O Hub	H8DA8 / HyperTransport AMD 8131 PCI-X Tunnel AMD 8111 I/O Hub	H8DCE / HyperTransport nVidia nForce Pro 2200 nVidia nForce Pro 2050	H8QC8 / HyperTransport nVidia nForce Pro 2200 AMD 8132 PCI-X Tunnel
16/32 GB ECC Reg. DDR 400/333 SDRAM in 8 DIMM sockets	16/32 GB ECC Reg. DDR 400/333 SDRAM in 8 DIMM sockets	16/32 GB ECC Reg. DDR 400/333 SDRAM in 8 DIMM sockets	32/64 GB ECC Reg. DDR 400/333 SDRAM in 16 DIMM sockets
2 64-bit PCI-X 133/100 MHz 2 64-bit PCI-X 66 MHz 2 32-bit PCI (all low profile slots)	2 64-bit PCI-X 133/100 MHz 2 64-bit PCI-X 66 MHz 2 32-bit PCI	2 PCI-express x16 2 PCI-express x4 (using x8 slot) 3 32-bit PCI	1 PCI-Express x8 1 PCI-Express x8 (using x16 slot) 2 64-bit PCI-X 133/100 MHz 2 64-bit PCI-X 100 MHz
Adaptec® 7902 2-channel Ultra320 SCSI	Adaptec® 7902 2-channel Ultra320 SCSI	nVidia nForce Pro 2200 & 2050 SATA (3 Gbps) for 8 SATA ports nVidia RAID 2.0 supported	Adaptec® 7902 2-channel Ultra320 SCSI
AOC-LPZCR1	AOC-LPZCR1	N/A	AOC-LPZCR1
Dual LAN with Broadcom 5704 Gigabit Ethernet controller ATI® Rage XL 8MB PCI graphics controller	Dual LAN with Broadcom 5704 Gigabit Ethernet controller ATI® Rage XL 8MB PCI graphics controller	Dual LAN with nVidia nForce Pro 2200 & 2050 Gigabit Ethernet AC'97 audio CODEC high quality 6-channel sound	Dual LAN with Intel 82546GB Gigabit Ethernet controller ATI® Rage XL 8MB PCI graphics controller
Low-profile IPMI 2.0 slot w/optional 3rd LAN port, SuperDoctor III, Watch Dog	Low-profile IPMI 2.0 slot w/optional 3rd LAN port, SuperDoctor III, Watch Dog	SuperDoctor III, Watch Dog	IPMI 2.0 socket, SuperDoctor III, Watch Dog
1.8 TB	2.4 TB	2.4 TB	3.0 TB
6 x 1" hot-swap Ultra320/160 SCA drive bays (SAF-TE compliant) & 1 x 5.25" drive bay	8 x 1" hot-swap Ultra320/160 SCA drive bays (SAF-TE compliant) & 3 x 5.25" drive bay	8 x 1" hot-swap SATA drive bays & 3 x 5.25" drive bay	Default 1 Mobile Rack (5 SCA drives) Support up to 2 Mobile Racks (10 SCA drives)
1 slim CD-ROM drive 1 floppy drive	1 floppy drive	1 floppy drive	N/A
500W redundant power supply w/ 1 <sup>2</sup> C built-in	Triple redundant power supply (760W + 380W) w/ 1 <sup>2</sup> C built-in	645W with low-noise fan speed control	Redundant power supply (1000W + 1000W) w/ 1 <sup>2</sup> C built-in
4 x 8cm heavy duty fans w/ optimal fan speed control & air shroud	4 x 8cm hot-swap cooling fans & 2 x 8cm exhaust fans w/optimal fan speed control & air shroud	4 x 4-pin Pulse Width Modulated (PWM) fans & air shroud	3 x 8cm hot-swap cooling fans & 3 x 8cm exhaust fans w/optimal fan speed control & air shroud
2U Rackmount 424 x 89 x 650mm (16.8" x 3.5" x 25.6")	4U Rackmount/Tower 452 x 178 x 648mm (17.8" x 7" x 25.5")	4U Rackmount/Tower 452 x 178 x 648mm (17.8" x 7" x 25.5")	4U Rackmount/Tower 464 x 178 x 720mm (18.27" x 7" x 28.35")

# 24 hours / 365 days . . .

## *Technical Support guarantees minimal downtime*

Supermicro server products are built with the highest quality components and the latest technology to ensure maximum performance and the highest availability. In our effort to assist you realize uninterrupted server operations, we offer standard round-the-clock technical service to help your system run 24/7 all year round.

Our goal is to deliver super reliable server solutions that meet the demands of today's fast-paced businesses. We implement optimized features such as 100% cooling redundancy, triple redundant hot-plug power supplies, hot-swap storage subsystems (includes SAS, SCSI, and SATA), RAID solutions, redundant hot-plug system cooling fans, to name a few, into our products that maximize system uptime and offer peace of mind. Moreover, our comprehensive system health monitoring software demonstrates our commitment to deliver enterprise-class quality products.

We employ a detail-oriented approach to system design and validation that promises stability and data integrity in all our server platforms. Our consistency in being the first to market with cutting-edge solutions based on the newest advances in server technology has earned us a reputation as the technology leader in the IT industry and the loyalty of many high-profile customers. Supermicro servers support all major operating systems, such as Windows, Solaris, UNIX and various Linux-based operating systems.

Take a moment to compare the computing density, advanced features and price to performance benefits of our solutions with the competition and see why Supermicro servers are the most optimal choice for your business needs.

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