

SUPERMICR[®]

8/4-Way MP Server Solutions

80-Core/2TB System



5U SYS-5086B-TRF
8-Way System



Power Efficiency
For TCO improvement and
earth-friendly computing



Platinum Level
80 PLUS[®] Certified
Power Supplies



Gold Level
80 PLUS[®] Certified
Power Supplies



1U SYS-8016B-6F / TF
4-Way System



2U SYS-8026B-6RF / TRF
4-Way System



4U SYS-8046B-6RF / TRF
4-Way System

- Supports Intel[®] Xeon[®] processor 7500 series and E7-8800/4800 product families
- Intel[®] 7500 Chipset and 7510 scalable memory buffers
- Supports up to 2TB* ECC Reg. DDR3 in 64 DIMMs
- Onboard 6Gb/s SAS (SAS 2.0) with hardware RAID (X8QB6-F)
- Up to 2800W redundant Gold Level high-efficiency power supplies with I²C & PMBus
- Integrated IPMI 2.0 Management + KVM with dedicated LAN
- Up to 10x PCI-E 2.0 slots for GPU application
- Dual LAN with Intel[®] 82576 Gigabit Ethernet controller

* Please check "Tested Memory List" on Supermicro website for compatibility.

Eight-Way MP Server

8 CPUs • Up to 80 Cores per System • Up to 2TB Memory • Up to 24x 2.5" HDDs
• Gold/Platinum Level Power • 10x PCI-E 2.0 Slots • 5U Form Factor • 4x GPU Support



X80BN-F

- **8-way** Intel® Xeon® processor 7500 series and E7-8800 product families
- **Dual** Intel® 7500 chipsets and Intel® 7510 scalable memory buffers
- Up to **2TB** of DDR3 Reg. ECC 1066/800 MHz SDRAM in 64 DIMM sockets (2 TB coming soon)*
- Intel® 82576 Dual-port Gigabit Ethernet LAN
- 6 SATA2 (3 Gbps) ports
- 4x PCI-E 2.0 x16 + 2x PCI-E 2.0 x8 (in x16 slots) or 10x PCI-E 2.0 x8 full-height full-length slots
- Onboard BMC supports IPMI 2.0 + KVM with Dedicated LAN
- Hot-swap middle fans and rear fans with fan speed control
- **Total 2800W** with front load redundant (2+2) 1400W **Gold Level** power supplies or 3200W **Platinum Level** redundant high-efficiency power supplies (coming soon) with I2C & PMBus
- 16x 2.5" hot-swap SATA/SAS 2.0 drive bays + 2x 5.25" bays** (or up to 24x 2.5" HDDs with optional HDD module)

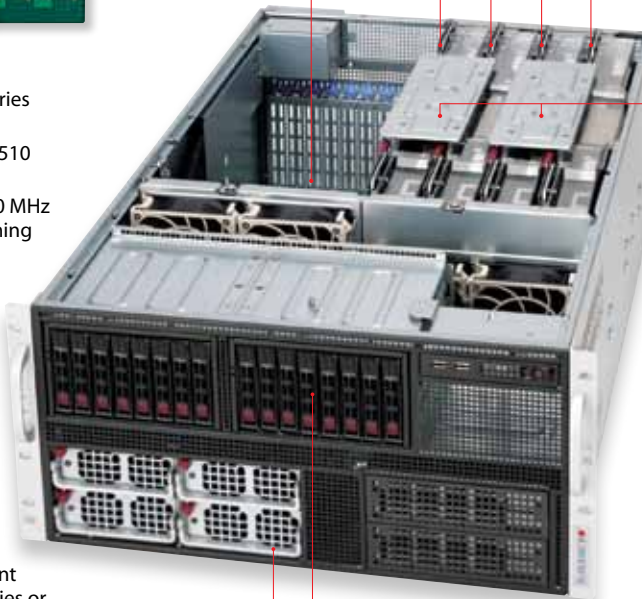
* Please check "Tested Memory List" on Supermicro website for compatibility

** Additional RAID/HBA card and cables may be required



X80BN-CPU

- 2x Intel® Xeon® processor 7500 series and E7-8800 product families
- 4x 7510 per CPU
- 16 DDR3/DDR3L R-DIMMs
- DDR3 1066/978/800 MHz support
- 6.4/5.86/4.8GT/s QPI ports



SuperServer® 5086B-TRF



X80BN-BR1

- Bridge board



Power Efficiency
For TCO improvement and earth-friendly computing



Platinum Level
80 PLUS® Certified
Power Supplies



Gold Level
80 PLUS® Certified
Power Supplies

Super High Performance Computing

The **SuperServer® 5086B-TRF** is the industry's most powerful x86 platform, capable of handling the most demanding data processing workloads, with up to 80 cores per system, 2TB of DDR3 memory, 10x PCI-E 2.0 slots, Gold/Platinum Level redundant power, up to 24x 2.5" HDDs, and Supermicro's signature quality and support. The benefits are obvious: more processing capacity in less space with better efficiency and cost profiles. The SYS-5086B-TRF is targeted at HPC, Data Center, and Cloud computing (IaaS, PaaS, SaaS) and virtualization environments; for 24/7 Mission Critical Applications, High Performance Databases, Business Intelligence, ERP, CRM, Business Continuity, CAD, EDA, and 3D applications.

SUPERMICR[®] 10-Core MP SuperServer Solutions

10-Core / 4-Way
6 Gb/s SAS



10-Core / 4-Way
6 Gb/s SAS



10-Core / 4-Way
6 Gb/s SAS



10-Core / 8-Way



MODEL	SuperServer [®] 8016B-6F SuperServer [®] 8016B-TF	SuperServer [®] 8026B-6RF SuperServer [®] 8026B-TRF	SuperServer [®] 8046B-6RF SuperServer [®] 8046B-TRF	SuperServer [®] 5086B-TRF
Key Features	<ul style="list-style-type: none"> Enterprise mission-critical applications, HPC cluster computer nodes, scientific computing Industry's best 1U 4-way architecture 6 Gb/s SAS2 support (8016B-6F) 40 processing cores in 1U Up to 1TB DDR3 memory 3x hot-swap SAS/SATA drive bays IPMI 2.0 + KVM w/ dedicated LAN 1400W Gold Level high-efficiency power supplies 	<ul style="list-style-type: none"> Enterprise mission-critical applications, financial, oil & gas, medical Industry's best 4-way architecture 6 Gb/s SAS2 support (8026B-6RF) Up to 1TB DDR3 memory 6x hot-swap SAS/SATA drive bays IPMI 2.0 + KVM w/ dedicated LAN 1400W redundant Gold Level high-efficiency power supplies 	<ul style="list-style-type: none"> Enterprise mission-critical applications, e-Commerce, virtualization, graphics Industry's best 4-way architecture 6 Gb/s SAS2 support (8046B-6RF) 4x Full size PCI-E expansion slots 5x hot-swap SAS/SATA drive bays IPMI 2.0 + KVM w/ dedicated LAN 1400W redundant Gold Level high-efficiency power supplies Tower/4U rackmount form factor 	<ul style="list-style-type: none"> Enterprise mission-critical applications, e-Commerce, virtualization, graphics Industry's best 8-way architecture 10x full size PCI-E expansion slots 16x hot-swap SAS/SATA drive bays** IPMI 2.0 + KVM w/ dedicated LAN Total 2800W (2+2) redundant 1400W Gold Level high efficiency with iPC & PMBus 5U rackmount form factor
Processor Support	Intel [®] Xeon [®] processor 7500 series and E7-4800 Product Families, support up to 105W***	Intel [®] Xeon [®] processor 7500 series and E7-4800 Product Families	Intel [®] Xeon [®] processor 7500 series and E7-4800 Product Families	Intel [®] Xeon [®] processor 7500 series and E7-8800 Product Families
Optimized Serverboard	SUPER [®] X8QB6-F / X8QBE-F	SUPER [®] X8QB6-F / X8QBE-F	SUPER [®] X8QB6-F / X8QBE-F	SUPER [®] X8OBN-F, X8OBN-CPU, X8OBN-BR1
Chipset	Intel [®] 7500 chipset with QPI up to 6.4GT/s	Intel [®] 7500 chipset with QPI up to 6.4GT/s	Intel [®] 7500 chipset with QPI up to 6.4GT/s	Dual Intel [®] 7500 chipset and Intel [®] 7510 Scalable Memory Buffer
System Memory (max.)	Supports up to 1TB* of DDR3 Reg. ECC 1066/800 MHz SDRAM in 32 DIMM sockets	Supports up to 1TB* of DDR3 Reg. ECC 1066/800 MHz SDRAM in 32 DIMM sockets	Supports up to 1TB* of DDR3 Reg. ECC 1066/800 MHz SDRAM in 32 DIMM sockets	Supports up to 2TB* of DDR3 Reg. ECC 1066/800 MHz SDRAM in 64 DIMM sockets
Server Expansion Slots	1x PCI-E 2.0 x16	Auto-switch from: (all low profile) a. 2x PCI-E 2.0 x16; or b. 1x PCI-E 2.0 x16 + 2 PCI-E 2.0 x8; or c. 4x PCI-E 2.0 x8	Auto-switch from: a. 2x PCI-E 2.0 x16; or b. 1x PCI-E 2.0 x16 + 2 PCI-E 2.0 x8; or c. 4x PCI-E 2.0 x8	Auto-switch from: a. 4x PCI-E 2.0 x16 + 2x PCI-E 2.0 x8 (in x16 slots) or b. 10x PCI-E 2.0 x8
Onboard SAS RAID	SS8016B-6F: LSI [®] 2108 6Gb/s SAS2 controller with RAID 0,1,5 SS8016B-TF: Intel [®] ICH10R for 6 SATA (3 Gbps) onboard RAID 0,1,5 (Windows) RAID 0,1 (Linux)	SS8026B-6RF: LSI [®] 2108 6Gb/s SAS2 controller with RAID 0,1,5,6,10,50 SS8026B-TRF: Intel [®] ICH10R for 6 SATA (3 Gbps) onboard RAID 0,1,5,10 (Windows) RAID 0,1,10 (Linux)	SS8046B-6RF: LSI [®] 2108 6Gb/s SAS2 controller with RAID 0,1,5,6,10 SS8046B-TRF: Intel [®] ICH10R for 6 SATA (3 Gbps) onboard RAID 0,1,5,10 (Windows) RAID 0,1,10 (Linux)	Intel [®] ICH10R for 6 SATA (3 Gbps) RAID 0, 1, 5, 10 (Windows) RAID 0,1,10 (Linux)
Networking/VGA	Dual LAN with Intel [®] 82576 Gigabit Ethernet controller Matrox G200eW graphics	Dual LAN with Intel [®] 82576 Gigabit Ethernet controller Matrox G200eW graphics	Dual LAN with Intel [®] 82576 Gigabit Ethernet controller Matrox G200eW Graphics	Dual LAN with Intel [®] 82576 PCI-Express Gigabit Ethernet controller Matrox G200eW Graphics
Manageability	IPMI 2.0 + KVM with dedicated LAN, SuperDoctor [®] III, Watch Dog	IPMI 2.0 + KVM with dedicated LAN, SuperDoctor [®] III, Watch Dog	IPMI 2.0 + KVM with dedicated LAN, SuperDoctor [®] III, Watch Dog	IPMI 2.0 + KVM with dedicated LAN, SuperDoctor [®] III, Watch Dog
Drive Bays	3x 3.5" hot-swap SAS/SATA drive bays 1x slim DVD-ROM (optional)	6x 3.5" hot-swap SAS/SATA drive bays 1x slim DVD-ROM drive (optional)	5x 3.5" hot-swap SAS/SATA drive bays 3x 5.25" peripheral bays	16x 2.5" hot-swap SAS/SATA drive bays 2x 5.25" peripheral bays (Up to 24x 2.5" drive bays with optional HDD module)
Power Supply	1400W Gold Level high-efficiency power supply with iPC & PMBus	1400W redundant Gold Level high-efficiency power supplies with iPC & PMBus	1400W redundant Gold Level high-efficiency power supplies with iPC & PMBus	Total 2800W (2+2) redundant 1400W Gold Level power supplies with iPC & PMBus (3200W Platinum Level Coming Soon!)
Cooling System	7x 4cm heavy duty counter-rotating fans with air shroud & optimal fan speed control	3x 8cm hot-swap cooling fans with air shroud & optimal fan speed control	3x 9cm + 3x 8cm hot-swap cooling fans with air shroud & optimal fan speed control	6x 9cm hot-swap cooling fans with air shroud & optimal fan speed control
Form Factor	1U Rackmount 437 x 43 x 705mm (17.2" x 1.7" x 27.75")	2U Rackmount 437 x 89 x 709mm (17.2" x 3.5" x 27.9")	4U Rackmount/Tower 462 x 178 x 746mm (18.2" x 7" x 29.4")	5U Rackmount 437 x 219 x 762mm (17.2" x 8.6" x 30")

* Please check "Tested Memory List" on Supermicro website for compatibility
 ** Additional RAID/HBA card and cables may be required
 *** 105W CPU support for ambient temperatures below 30°C

April 2011

SUPERMICR[®] Multi-Processor Based Server Solutions

Supermicro again brings cutting edge technology to the IT industry with its next-generation 8/4-way MP Server Building Block Solutions[®]. The SuperServer 8016B-6F/TF is the only 1U HPC system of its kind available in the marketplace today while the SuperServer 5086B-TRF offers supercomputer performance in a 5U form factor, facilitating up to 80 cores and 10 full-height, full-length PCI-E 2.0 slots. In addition, the 2U SuperServer 8026B-6RF/TRF and 4U SuperServer[®] 8026B-6RF/TRF are also industry's best 4-way architecture.

With Eight/Four Intel[®] Xeon[®] processor E7 series and up to 2TB/1TB of Registered ECC DDR3 memory these powerful server systems offer the ultimate in performance through multi-threaded, multi-core technology. Signature Supermicro enhanced features include 90%+ power-efficient VRMs, high-efficiency Gold Level power supplies, optimized cooling, high speed connectivity options, onboard hardware RAID providing 6Gb/s SAS (-6 option) for additional storage bandwidth, and integrated IPMI 2.0 for advanced remote management.

These 8/4-way MP SuperServers support the full range of Intel[®] Xeon[®] processor E7-8800/4800 series SKUs. From performance optimized 130-watt to high-density rack optimized 95-watt SKUs, customers now have many choices to select the server that is best for their applications. These server solutions are particularly well-suited for virtualization, HPC, database, finance, oil and gas, engineering and research applications.

4-Way Motherboard



X8QB6-F/ X8QBE-F

- Supports Intel[®] Xeon[®] processor 7500 series and E7-4800 product families
- Intel[®] 7500 Chipset with QPI up to 6.4 GT/s
- Up to 1TB DDR3 1066/800 MHz ECC Registered DIMM
- Intel[®] 82576 dual-port Gigabit Ethernet Controller
- 6 SATA2 (3 Gb/s) ports via ICH10R Controller
- 2 (x16) PCI-E 2.0 or 1 (x16) PCI-E 2.0 + 2 (x8) PCI-E 2.0 or 4 (x8) PCI-E 2.0 slots
- Integrated Matrox G200eW Graphics
- LSI 2108 8-Port 6Gb/s SAS Controller; RAID 0, 1, 5, 6, 10, 50, 60 (X8QB6-F)
- Integrated IPMI 2.0 with Dedicated LAN
- Form factor: Proprietary, 16.4" x 16.8"

Optimized Chassis with Platinum/Gold Level Power, Optimized Cooling



SC818A-1400LPB

1400W
Gold Level Power Supply
3x 3.5" SAS/SATA
hot-swap drive bays



SC828TQ-R1400LPB

Redundant 1400W
Gold Level Power Supplies
6x 3.5" SAS/SATA
hot-swap drive bays



SC748TQ-R1400B

Redundant 1400W
Gold Level Power Supplies
5x 3.5" SAS/SATA
hot-swap drive bays



SC758A-R2800B

Redundant 2800W
Gold Level Power Supplies
(3200W Platinum Level Coming Soon!)
16x 2.5" SAS/SATA
hot-swap drive bays

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