SUPERMICRO®

GPU Massively Parallel Processing

Supercomputing Servers

Two TFLOP GPUs in 1U
The world's first and only
GPU-optimized 1U server!

GPU 1
(Double-width)

GPU 2
(Double-width)

**X8DTG-DF
Serverboard**

80 PLUS GOLD

Gold Level
80 PLUS® Certified
Power Supplies

SuperServer 6016GT series
X8DTG-DF Serverboard + SC818G-1400B Chassis

Supermicro GPU Supercomputing Server Solutions

The SS6016GT Supercomputing servers establish Supermicro as the true global IT hardware leader in server architecture, performance, and Green computing. Generating massively parallel processing power and unrivaled networking flexibility with two double-width GPUs, up to 5 expansion slots or with InfiniBand networking options, in a 1U form factor, the SS6016GT is performance and quality optimized for the most computationally-intensive applications. Supermicro's unique server designs with Gold Level power supplies, energy-saving motherboards and enterprise class server management optimize cooling for even the most demanding applications, provide the perfect technology platform for these impressive GPU Supercomputing Servers.

Medical Imaging   Oil & Gas Exploration   Quantum Chemistry   Financial Simulation   3D Ultrasound   Astrophysics
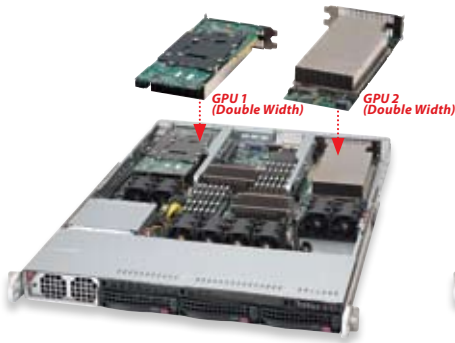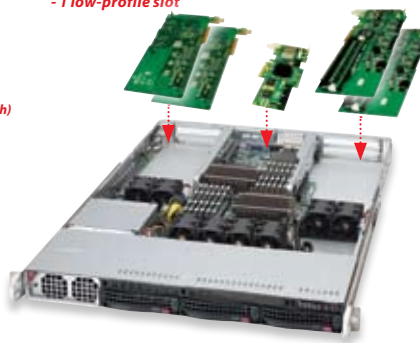
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SUPERMICRO® *GPU Supercomputing Server Solutions*

2x GPUs included!

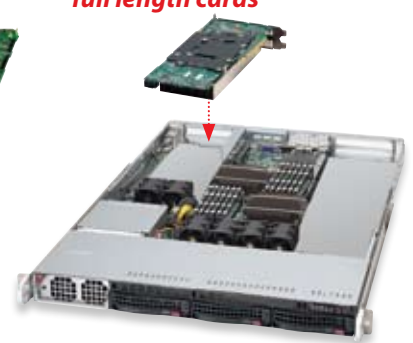GPU 1 (Double Width)   GPU 2 (Double Width)

Supports 5 PCI-E 2.0 add-on cards
- *4 full-height, full length slots*
- *1 low-profile slot*

Supports one PCI-E 2.0 x16 compatible GPU or 2 full-height, full length cards

MODEL	SS6016GT-TF-TM2 SS6016GT-TF-TC2 SS6016GT-TF	SS6016XT-TF	SS6016T-GIBQF SS6016T-GIBXF SS6016T-GTF
Outstanding Selling Points	• 2 Teraflops in 1U (240 cores per GPU) • The world's first and only GPU optimized 1U server • Gold Level 93% efficiency 1400W power supplies • Flexible system configurations: Enterprise level intelligent server IPMI managemnet tool with GPU cooling control and status information with TM2 model and active cooling with TC2 model • Certified by NVIDIA • Intelligent server management tool	• 5 add-on cards in 1U • Gold Level 93% efficiency 1400W power supplies • Intelligent server management tool	• The world's first and only GPU optimized 1U server • Gold Level 93% efficiency 1400W power supplies • Intelligent server management tool • On-board Infiniband
Processor Support	Intel® Xeon® Processor 5500 Series (Nehalem)	Intel® Xeon® Processor 5500 Series (Nehalem)	Intel® Xeon® Processor 5500 Series (Nehalem)
Chipset	Intel® 5520 chipset with QPI up to 6.4GT/s	Intel® 5520 chipset with QPI up to 6.4GT/s	Intel® 5520 chipset with QPI up to 6.4GT/s
GPUs/ Add-on Cards	**TM2:** 2 NVIDIA® Tesla M1060 GPU Cards are included **TC2:** 2 NVIDIA® Tesla C1060 GPU Cards are included **TF:** No GPU Cards are included	Supports 5 PCI-E 2.0 add-on cards in 1U - 4 full-height, full length slots - 1 low-profile slot	Supports one PCI-E 2.0 x16 compatible GPU or 2 full-height, full length cards w/ optional riser card
Motherboard	SUPER● ® X8DTG-DF	SUPER● ® X8DTG-DF	SUPER● ® X8DTT-(T/IBX/IBQ)F Supports all Twin boards
System Memory (max.)	Up to 96 GB of DDR3 Reg. ECC; 24 GB Unb. ECC/Non-ECC 1333/1066/800 MHz SDRAM in 12 DIMMs	Up to 96 GB of DDR3 Reg. ECC; 24 GB Unb. ECC/Non-ECC 1333/1066/800 MHz SDRAM in 12 DIMMs	Up to 48 GB of DDR3 Reg. ECC; 24 GB Unb. ECC/Non-ECC 1333/1066/800 MHz SDRAM in 12 DIMMs
Expansion Slots	Right/Left slot: - NVIDIA® Tesla M1060 GPU Card - Total 2 Cards (TM2 Model) - NVIDIA® Tesla C1060 GPU Card - Total 2 Cards (TC2 Model) Top slot via riser card (low-profile): - PCI-E 2.0 x4 (in x16 slot)	Right/Left slot: - 2x PCI-E 2.0 x8 (in x16 slots) - Total 4 slots Top slot via riser card (low-profile): - PCI-E 2.0 x4 (in x16 slot)	1 PCI-E 2.0 x16 6016T-GIBXF: ConnectX DDR InfiniBand w/ QSFP connector 6016T-GIBQF: ConnectX QDR InfiniBand w/ QSFP connector
Onboard SATA RAID	Intel® ICH10R for 6 SATA (3 Gbps): 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)	Intel® ICH10R for 6 SATA (3 Gbps): RAID 0, 1, 5, 10 (Windows) RAID 0,1,10 (Linux)
Onboard LAN/ VGA/ I/O	Dual LAN with Intel® 82576 Gigabit Ethernet Up to 4 USB 2.0 ports Matrox G200eW Graphics	Dual LAN with Intel® 82576 Gigabit Ethernet Up to 4 USB 2.0 ports Matrox G200eW Graphics	Dual LAN with Intel® 82576 Gigabit Ethernet Up to 4 USB 2.0 ports Matrox G200eW Graphics
Manageability	IPMI 2.0 + KVM with dedicated LAN Watch Dog, SuperDoctor® III	IPMI 2.0 + KVM with dedicated LAN Watch Dog, SuperDoctor® III	IPMI 2.0 + KVM with dedicated LAN Watch Dog, SuperDoctor® III
Drive Bays	3x 3.5" hot-swap drive trays 1x Slim DVD drive (optional) USB / COM port tray (optional)	3x 3.5" hot-swap drive trays 1x Slim DVD drive (optional) USB / COM port tray (optional)	3x 3.5" hot-swap drive trays 1x Slim DVD drive (optional) USB / COM port tray (optional)
Power Supply	1400W Gold Level high-efficiency power supply	1400W Gold Level high-efficiency power supply	1400W Gold Level high-efficiency power supply
Cooling System	8x 4cm heavy duty counter-rotating fan with optimal GPU and CPU fan speed control	8x 4cm heavy duty counter-rotating fan with optimal GPU and CPU fan speed control	8x 4cm heavy duty counter-rotating fan with optimal GPU and CPU fan speed control
Form Factor	1U rackmount: 17.2"W (437mm) x 1.7"H (43mm) x 28.2"D (716mm)	1U rackmount: 17.2"W (437mm) x 1.7"H (43mm) x 28.2"D (716mm)	1U rackmount: 17.2"W (437mm) x 1.7"H (43mm) x 28.2"D (716mm)

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