

# SUPERMICRO<sup>®</sup> Twin Family

Unrivaled Efficiency and Performance · Cost-Effective with High Reliability/Density

## 2U Twin<sup>2</sup> Four DP Nodes in 2U



Gold Level  
80 PLUS<sup>®</sup> Certified  
Power Supplies



Rear View



Front View

- Highest Performance-per-Watt (**375 GFLOPS/kW**)
- Highest Performance-per-Dollar
- Four Independent Hot-pluggable DP Nodes
- High-efficiency Gold-Level Power Supply (93%+) with Optional 1+1 Redundancy
- Power-efficient Serverboard and Cooling Subsystem Designs

## 1U Twin<sup>™</sup> Two DP Nodes in 1U



Gold Level  
80 PLUS<sup>®</sup> Certified  
Power Supplies



Front View



Rear View

- **Innovation Excellence Server Award**
- **Double Computing Density: Shared Power, Chassis and Cooling**
- High-efficiency Gold-Level Power Supply (93%+)
- Onboard QDR or DDR InfiniBand or 10GbE for High-performance Connectivity
- 24 DIMMs DDR3 Memory Support in 1U

## Twin Family

The Supermicro **Twin Family** is truly revolutionary. With four nodes in a 2U space, the new **2U Twin<sup>2</sup>**™ delivers world-class energy efficiency and performance in a small but powerful package. Built with independent full-function system control and management, each node is contained in a convenient module design for easy system upgrade, installation and maintenance. Optimized redundant power and cooling make the Supermicro **2U Twin<sup>2</sup>**™ the best choice for HPC, datacenter and cost-effective blade applications. Together with the award-winning **1U Twin<sup>™</sup>** systems, Supermicro offers the most advanced and complete HPC solutions in the world.

## Twin Family Compatible Motherboards:



X8DTT-IBQ(F)  
X8DTT-HIBQ(F)  
(Tylersburg based)



X8DTT-IBX(F)  
X8DTT-HIBX(F)  
(Tylersburg based)



X8DTT-(F)  
X8DTT-H-(F)  
(Tylersburg based)



X7DWT  
(Seaburg based)



X7DCT  
(San Clemente based)



X7DBT  
(Blackford based)



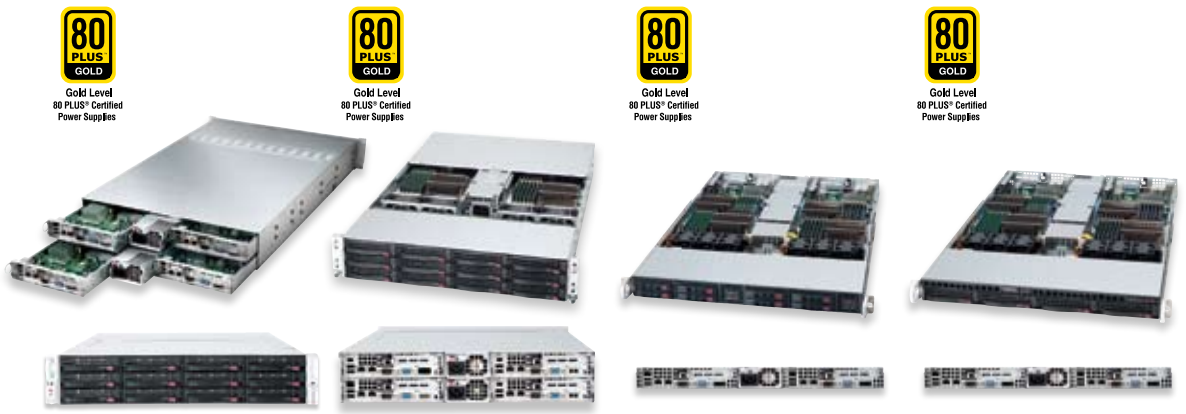
X7DGT  
(GreenCreek based)



X7SBT  
(BearlakeX based)



H8DMT  
(MCP55-Pro based)



Model	6026TT-BIBQ(R)/HIBQ(R)/F 6026TT-BIBX(R)/HIBX(R)/F 6026TT-BT(R)/HT(R)/F	6026TT-IBQF 6026TT-IBXF 6026TT-TF	1026TT-IBQF 1026TT-IBXF 1026TT-TF	6016TT-IBQF 6016TT-IBXF 6016TT-TF
Processor Support	Two Quad-Core/Dual Core Intel® Xeon® 5500 Series (Nehalem) up to 95W per Node	Two Quad-Core/Dual Core Intel® Xeon® 5500 Series (Nehalem) up to 95W per Node	Two Quad-Core/Dual Core Intel® Xeon® 5500 Series (Nehalem) per Node	Two Quad-Core/Dual Core Intel® Xeon® 5500 Series (Nehalem) per Node
Key Applications	HPC cluster computer nodes, data center data farm, front-end server and other high performance computing intensive applications	HPC cluster computer nodes, data center data farm, front-end server and other high performance computing intensive applications	HPC cluster computer nodes, data center data farm, front-end server and other high performance computing intensive applications	HPC cluster computer nodes, data center data farm, front-end server and other high performance computing intensive applications
Outstanding Features	<ul style="list-style-type: none"> <li>• Four hot-swap nodes in 2U</li> <li>• Up to 32 cores in 2U</li> <li>• Gold Level high-efficiency power supply with PMBus support</li> <li>• Double density and computing power</li> <li>• Independent power control &amp; UID function</li> <li>• Independent cooling control</li> <li>• Highest power utilization</li> <li>• Reduce power cables and power strips</li> <li>• Save maintenance/management costs</li> </ul>	<ul style="list-style-type: none"> <li>• Four nodes in 2U</li> <li>• Up to 32 cores in 2U</li> <li>• Gold Level high-efficiency power supply with PMBus support</li> <li>• Double density and computing power</li> <li>• Independent power control &amp; UID function</li> <li>• Independent cooling control</li> <li>• Highest power utilization</li> <li>• Reduce power cables and power strips</li> <li>• Save maintenance/management costs</li> </ul>	<ul style="list-style-type: none"> <li>• Two nodes in 1U</li> <li>• Up to 16 cores in 1U</li> <li>• Gold Level high-efficiency power supply</li> <li>• Double density and computing power</li> <li>• InfiniBand support</li> <li>• Independent power control</li> <li>• Independent cooling control</li> <li>• Higher power utilization increases power efficiency</li> <li>• Reduce power cables and power strips</li> <li>• Save maintenance/management costs</li> </ul>	<ul style="list-style-type: none"> <li>• Two nodes in 1U</li> <li>• Up to 16 cores in 1U</li> <li>• Gold Level high-efficiency power supply</li> <li>• Double density and computing power</li> <li>• InfiniBand support</li> <li>• Independent power control</li> <li>• Independent cooling control</li> <li>• Higher power utilization increases power efficiency</li> <li>• Reduce power cables and power strips</li> <li>• Save maintenance/management costs</li> </ul>
Chipset	Intel® 5520 chipset with QPI up to 6.4GT/s per Node	Intel® 5520 chipset with QPI up to 6.4GT/s per Node	Intel® 5520 chipset with QPI up to 6.4GT/s per Node	Intel® 5520 chipset with QPI up to 6.4GT/s per Node
System Memory	Quad set of 48GB DDR3 Reg. ECC; 24GB Unb. ECC/Non-ECC 1333/1066/800 MHz SDRAM in 12 DIMMs	Quad set of 48GB DDR3 Reg. ECC; 24GB Unb. ECC/Non-ECC 1333/1066/800 MHz SDRAM in 12 DIMMs	Twin set of 48GB of DDR3 Reg. ECC; 24GB Unb. ECC/Non-ECC 1333/1066/800 MHz SDRAM in 12 DIMMs	Twin set of 48GB of DDR3 Reg. ECC; 24GB Unb. ECC/Non-ECC 1333/1066/800 MHz SDRAM in 12 DIMMs
Expansion Slots	Quad set of PCI-E 2.0 x16 Quad set of ConnectX™ QDR InfiniBand (BIBQF version) Quad set of ConnectX™ DDR InfiniBand (BIBXF version)	Quad set of PCI-E 2.0 x16 Quad set of ConnectX™ QDR InfiniBand (IBQF version) Quad set of ConnectX™ DDR InfiniBand (IBXF version)	Twin set of PCI-E 2.0 x16 Twin set of ConnectX™ QDR InfiniBand (IBQF version) Twin set of ConnectX™ DDR InfiniBand (IBXF version)	Twin set of PCI-E 2.0 x16 Twin set of ConnectX™ QDR InfiniBand (IBQF version) Twin set of ConnectX™ DDR InfiniBand (IBXF version)
Onboard SAS/SCSI/SATA/RAID	Quad set of Intel® ICH10R for 6 SATA (3 Gbps) RAID 0, 1, 5, 10 (Windows) RAID 0, 1, 10 (Linux)	Quad set of Intel® ICH10R for 6 SATA (3 Gbps) RAID 0, 1, 5, 10 (Windows) RAID 0, 1, 10 (Linux)	Twin set of Intel® ICH10R for 6 SATA (3 Gbps) RAID 0, 1, 5, 10 (Windows) RAID 0, 1, 10 (Linux)	Twin set of Intel® ICH10R for 6 SATA (3 Gbps) RAID 0, 1, 5, 10 (Windows) RAID 0, 1, 10 (Linux)
Onboard LAN/VGA	Quad set of Dual LAN with Intel® 82576 (IBQF and BIBXF version) or 82574L (BTF version) Gigabit Ethernet controller (w/ IOAT support) Quad set of Matrox G200eW graphics	Quad set of Dual LAN with Intel® 82576 (IBQF and IBXF version) or 82574L (TF version) Gigabit Ethernet controller (w/ IOAT support) Quad set of Matrox G200eW graphics	Twin set of Dual LAN with Intel® 82576 (IBQF and IBXF version) or 82574L (TF version) Gigabit Ethernet controller (w/ IOAT support) Twin set of Matrox G200eW graphics	Twin set of Dual LAN with Intel® 82576 (IBQF and IBXF version) or 82574L (TF version) Gigabit Ethernet controller (w/ IOAT support) Twin set of Quad MATROX G200eW graphics
Manageability	Quad set of BMC supporting IPMI 2.0, Media/KVM over LAN SuperDoctor®III, Watch Dog	Quad set of BMC supporting IPMI 2.0, Media/KVM over LAN SuperDoctor®III, Watch Dog	Twin set of BMC supporting IPMI 2.0, Media/KVM over LAN SuperDoctor®III, Watch Dog	Twin set of BMC supporting IPMI 2.0, Media/KVM over LAN SuperDoctor®III, Watch Dog
Drive Bays	Quad set of 3x 3.5" hot-swap SATA drive bays per node	Quad set of 3x 3.5" hot-swap SATA drive bays per node	Twin set of 4x 2.5" hot-swap SATA drive bays per node	Twin set of 2x 3.5" hot-swap SATA drive bays per node
Power Supply	1200W/1400W Gold Level high-efficiency redundant power supply with PMBus	1200W/1400W Gold Level high-efficiency power supply with PMBus (redundant power optional)	1200W Gold Level high-efficiency power supply with PMBus	1200W Gold Level high-efficiency power supply with PMBus
Cooling System	Twin set of 2x 8cm heavy duty PWM fans w/ optimal fan speed control	Twin set of 2x 8cm heavy duty PWM fans w/ optimal fan speed control	Twin set of 3x 40x56mm counter-rotating PWM fans w/ optimal fan speed control per node	Twin set of 3x 40x56mm counter-rotating PWM fans w/ optimal fan speed control per node
Form Factor	2U Rackmount 17.25W" x 3.47H" x 28.5D" (438W x 88H x 724D mm)	2U Rackmount 17.25W" x 3.47H" x 28.5D" (438W x 88H x 724D mm)	1U Rackmount 17.2W" x 1.7H" x 27.75D" (437W x 43H x 705D mm)	1U Rackmount 17.2W" x 1.7H" x 27.75D" (437W x 43H x 705D mm)
Optimized Motherboard	-BIBQ(R)F: X8DTT-IBQF X8DTT-IBXF X8DTT-F -HIBQ(R)F: X8DTT-HIBQF X8DTT-HIBXF X8DTT-HF	X8DTT-IBQF X8DTT-IBXF X8DTT-F	X8DTT-IBQF X8DTT-IBXF X8DTT-F	X8DTT-IBQF X8DTT-IBXF X8DTT-F
Optimized Chassis	CSE-827B-(R)1200B/1400B	CSE-827T-1200B/1400B	CSE-809T-1200B	CSE-808T-1200B

[www.supermicro.com/2UTwin2](http://www.supermicro.com/2UTwin2)