Supermicro®

GPU/Xeon Phi™
Supercomputing Server Solutions

Up to 4 Double-Width PCI-E 3.0 in 1U
Supports Active & Passive GPU/Xeon Phi™ cards

- PERFORMANCE: Up to 4x 300W GPU/Xeon Phi™ cards in 1U to maximize computing power
- FLEXIBILITY: Capable of supporting Active & Passive GPU/Xeon Phi™ for unique workloads
- MANAGEABILITY: Server management & GPU status monitoring through IPMI 2.0
- RELIABILITY: 2000W (1+1) Redundant Titanium Level power supplies & intelligent cooling control
- EFFICIENCY: Breakthrough system architecture to optimize TCO, with Titanium Level power supplies, advanced cooling, and high-end motherboard components
- DESIGN: Optimized architecture with no GPU/Xeon Phi™ preheating

www.supermicro.com/GPU  June 2016
The new Supermicro GPU/Xeon Phi™ SuperServer® - SYS-1028GQ-TR(T) supports up to: 4 GPU/Xeon Phi™ cards in 1U, with 2TB DDR4 2400MHz ECC 3DS LRDIMM or RDIMM memory in 16 DIMM slots, 4 SATA 3.0 (6Gbps) ports with Intel® C612 controller. LAN options up to 2x 10GBase-T or 2x Gigabit Ethernet ports, redundant Titanium/Platinum Level power supplies, integrated IPMI 2.0 with KVM over dedicated LAN, and dual Intel® Xeon® processor E5-2600 v4/v3 product family up to 44 cores per node and 145W TDP.

Generating massively parallel processing power and unrivaled networking flexibility with PCI-E 3.0 expansion slots and 10GBase-T LAN, the Supermicro GPU/Xeon Phi™ SuperServer® systems deliver the maximum processing acceleration for the most compute-intensive workloads in the smallest physical dimensions. With support for the very latest DP processors and up to 4 GPU/Xeon Phi™ cards in 1U, these powerful Supermicro GPU/Xeon Phi™ SuperServers help customers to create the most optimized solutions for their supercomputing needs. These systems are offered with Supermicro Global Services and Support featuring Next Business Day or 4-Hour Same Day hardware maintenance service to increase system uptime and productivity.

Supermicro's powerful GPU/Xeon Phi™ SuperServer® systems are optimized for HPC, Medical Imaging, Oil and Gas simulation, Computational Finance, Science and Engineering, and Media/Entertainment.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>SYS-1028GQ-TR(T)</th>
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<tbody>
<tr>
<td>Processor Support</td>
<td>Dual Intel® Xeon® Processor E5-2600 v4 (Broadwell)/v3 (Haswell) product family with QPI up to 9.6 GT/s</td>
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<td>Key Applications</td>
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<td></td>
<td>• HPC cluster computer nodes</td>
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<td>• 2D/3D and CAD Applications</td>
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<td></td>
<td>• High-performance computing</td>
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<td>• Oil &amp; Gas</td>
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<td>• Cloud and Virtualization needs</td>
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<td>• Astrophysics</td>
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<td>Outstanding Features</td>
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<td></td>
<td>• Up to 4 double width GPU cards in 1U</td>
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<td></td>
<td>• Supports 16 DIMM, DDR4-2400MHz</td>
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<td></td>
<td>• 2000W Redundant Titanium Level high-efficiency power supplies</td>
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<td>• 4x 2.5&quot; SATA drives</td>
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<td></td>
<td>• IPMI 2.0 + KVM with dedicated LAN</td>
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<td>• GPU health monitoring with fan speed control</td>
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<tr>
<td>Serverboard</td>
<td>SUPER® X10DGQ</td>
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<tr>
<td>Chipset</td>
<td>Intel® C612 Chipset</td>
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<td>System Memory (Max.)*</td>
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<td></td>
<td>Up to 2TB ECC 3DS LRDIMM or RDIMM DDR4-2400MHz in 16 DIMM slots</td>
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<td>Expansion Slots</td>
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<td></td>
<td>4 PCI-E 3.0 x16 slots (4x GPU/Xeon Phi™ opt.)</td>
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<td>2 PCI-E 3.0 x8 (in x16) low profile slots</td>
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<tr>
<td>Onboard Storage Controller</td>
<td>Intel® C612 controller for 4 SATA3 (6Gbps) Ports; RAID 0,1,5,10</td>
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<td>Connectivity</td>
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<td>-TR: Dual LAN with Intel® i350 Gigabit Ethernet controller</td>
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<td>-TRT: Dual 10Gb Ethernet LAN with Intel® X540 and 10GBase-T connector</td>
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<td>VGA/Audio</td>
<td>AST2400 VGA</td>
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<td>Management</td>
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<td></td>
<td>IPMI 2.0 + KVM with dedicated LAN, Intel® Node Manager, SUM, SPM, SSM, SuperDoctor® 5, Watchdog</td>
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<td>Drive Bays</td>
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<td>2x 2.5&quot; hot-swap SATA drive bay + 2x 2.5&quot; internal HDDs</td>
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<td>Power Supply</td>
<td>2000W Redundant Titanium Level high-efficiency power supplies</td>
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<td>Cooling System</td>
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<td></td>
<td>9x 4cm heavy duty counter-rotating PWM fans with air shroud with optimal fan speed control</td>
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<td>Form Factor</td>
<td>1U Rackmount: 437 x 43 x 894mm (17.2&quot; x 1.7&quot; x 35.2&quot;)</td>
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* Please check with your Supermicro sales representative for compatibility