SGI Rackable Standard-Depth Servers

Reliable, High Performance Intel® Xeon® Processor E5-2600 v2 Family Rackmount Solutions

Key Features

- Full range of four- to twelve-core Intel® Xeon® processor E5-2600 v2 family factory-integrated configurations
- Open architecture and flexible component choices
- Fine-grained power optimization available

Flexible, High Density Configurations

Rackable Standard-Depth servers mount in industry-standard 19” racks, achieving high density levels of up to 84 dual-processor servers per 42U rack. With the ability to support today’s fastest eight-core Intel® Xeon® processors, one cabinet can deliver the compute power of—and effectively cool—2,016 processing cores.

Rackable C2112 compute nodes deliver the ultimate in cluster density, packing four 24-core nodes into a slim 2U form factor with shared power and cooling. The powerful C2108-RP2 is an ideal cluster head node or standalone departmental server, offering additional extensibility and I/O options. The C2110G-RP5-P also supports up to six NVIDIA® Tesla™ K-class GPU or Intel® Phi modules.

Rackable servers run industry-standard operating systems, with a choice of SUSE® Linux® Enterprise Server or Red Hat® Enterprise Linux. In addition, SGI Performance Suite includes resource management tools and enhanced development libraries. SGI Management Suite provides full system management and monitoring for both data center and High Performance Computing (HPC) environments.

SGI Rackable Clusters

SGI offers a range of factory integration options to help get customers productive sooner. From complete factory integration where SGI labels, tests and configures every system in the cluster, to delivering individual, standalone servers, SGI delivers exactly what users require based on their unique business needs. With a set of predefined parameters, SGI delivers factory-integrated solutions which take the uncertainty out of an optimized clustered environment.

World-Class Service and Support

SGI products are fully backed by a range of warranty and support offerings. Our Professional Services team is available to help with solutions outside traditional support packages in areas ranging from HVAC to power and network design to customer-specific operating system solutions.

Complementary Storage Solutions

We offer SGI InfiniteStorage servers with integrated storage, as well as a rich portfolio of RAID, JBOD, NAS and SAN external storage solutions that are the perfect complement to Rackable servers. Our InfiniteStorage JBOD line is particularly popular, as these systems provide both cost-effective and high-performance methods of attaching storage to Rackable servers.
## Configuration Specifications

<table>
<thead>
<tr>
<th>Server</th>
<th>C1104G</th>
<th>C1110</th>
<th>C2110G</th>
<th>C2108</th>
<th>C2112</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Number</td>
<td>C1104G-2P5</td>
<td>C1110-RP6</td>
<td>C2110G-2P5-P</td>
<td>C2108-2P2</td>
<td>C2112-2P2-4P9</td>
</tr>
<tr>
<td>Chassis Profile</td>
<td>1U standard-depth</td>
<td>1U standard-depth</td>
<td>2U standard-depth</td>
<td>2U standard-depth</td>
<td>2U standard-depth</td>
</tr>
<tr>
<td>Servers/System</td>
<td>One dual-socket</td>
<td>One dual-socket</td>
<td>One dual-socket</td>
<td>One dual-socket</td>
<td>Four dual-socket (hot-plug)</td>
</tr>
<tr>
<td>Chipset</td>
<td>Intel® C600</td>
<td>Intel® C600</td>
<td>Intel® C600</td>
<td>Intel® C600</td>
<td>Four Intel® C600 (one per server)</td>
</tr>
<tr>
<td>Processors</td>
<td>Two Intel® Xeon® E5-2600 v2</td>
<td>Two Intel® Xeon® E5-2600 v2</td>
<td>Two Intel® Xeon® E5-2600 v2</td>
<td>Eight Intel® Xeon® E5-2600 v2 series (two per server)</td>
<td>Eight Intel® Xeon® E5-2600 v2 (two per server)</td>
</tr>
<tr>
<td>Max. Cores</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>96 (24 per server)</td>
</tr>
<tr>
<td>Max. Memory</td>
<td>256GB in 8 slots</td>
<td>512GB in 16 slots</td>
<td>256GB in 8 slots</td>
<td>768GB in 24 slots</td>
<td>1,024GB in 32 slots (8 slots per server)</td>
</tr>
<tr>
<td>Memory Type</td>
<td>1866/1600/1333/1066 MHz DDR3 ECC reg.</td>
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</tr>
<tr>
<td>RAID Card Levels (Optional)</td>
<td>JBOD, RAID 0, 1, 5, 6, 10</td>
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<td>JBOD, RAID 0, 1, 5, 6, 10</td>
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<td>JBOD, RAID 0, 1, 5, 6, 10</td>
</tr>
<tr>
<td>Expansion Slots (Optional)</td>
<td>• Three PCIe x4 slots support three double-width GPUs</td>
<td>• One PCIe x16 slot height, or two PCIe x8 slots per server</td>
<td>• Six PCIe x4 slots support six double-width GPUs</td>
<td>• Six PCIe x8 slots per server, or two PCIe x4 slots per server</td>
<td>• Four PCIe x16 slots per server</td>
</tr>
<tr>
<td>Network (Onboard)</td>
<td>Dual-Port GigE controller (Intel® I350)</td>
<td>Three GigE controllers (two Intel® I350 and one Intel® I350)</td>
<td>Quad-Port GigE controller (Intel® I350)</td>
<td>Dual-Port GigE controller (Intel® I350)</td>
<td>Dual-Port GigE controller (Intel® I350)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>1800W Redundant* Platinum Level</td>
<td>1800W Redundant* Platinum Level</td>
<td>1800W Redundant* Platinum Level</td>
<td>1800W Redundant* Platinum Level</td>
<td>1800W Redundant* Platinum Level</td>
</tr>
<tr>
<td>Form Factor</td>
<td>43.7cm x 26&quot; (66.0cm)</td>
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</tbody>
</table>

## Rackable Server Software Support

**System Software**
- SUSE® Linux® Enterprise Server 11 or Red Hat® Enterprise Linux 6

**Software Solution Stack**
- Performance Software: SGI Performance Suite
- Cluster Management Software: SGI Management Suite
- Job Scheduling/Workload Management: Alarum® PBS Professional™, Adaptive Computing™ Moab® Cluster Suite Basic Edition
- Fabric Management: SGI InfiniBand Fabric Management
- File System: XFS™ 64-bit journaled file system, CXFS™ shared file system for SANs

**Development Tools**
- Programming Languages: Intel® C++, Compiler, Intel® Fortran Compiler, GNU compilers
- Debuggers: Intel® Debugger (IDB) included with Intel® compilers, GNU Debugger (GDB), RogueWave Software® TotalView® and Threadripper™, Allinea DDT, Intel® Inspector XE
- Parallel Programming: SGI MPI, Intel® MPI, OpenMP included with Intel® compilers, OpenMPI, Intel® Trace Analyzer and Collector
- Performance Analysis: Intel® VTune Amplifier XE

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**About SGI**

SGI, the trusted leader in high performance computing (HPC), is focused on helping customers solve their most demanding business and technology challenges by delivering technical computing, Big Data analytics, cloud computing, and petascale storage solutions that accelerate time to discovery, innovation, and profitability. For more information please contact an SGI sales representative at 1-800-800-7441 or visit www.sgi.com/contactus.

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**Global Sales and Support:**

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