SGI Rackable Half-Depth Servers

Reliable, High Density Intel® Xeon® Processor Rackmount Solutions

Key Features

Full range of four- to twelve-core Intel® Xeon® processor E5-2600v2 family, and 5600 series, configurations

Open architecture, flexible component choices support specific business needs and budget

SGI Rackable Half-Depth, rackmount servers incorporate a unique, industry-leading approach to thermal management and power efficiency to enable power savings and higher levels of reliability in any data center environment. Rackable Half-Depth servers are available in a broad range of configurations and are mounted back-to-back to achieve high density and cooling efficiency.

Flexible Configurations

SGI Rackable servers are highly configurable and designed to address specific data center needs and eliminate unnecessary costs. Based on an open architecture approach using Intel® Xeon® processors, Rackable servers are available in a full range of customizable configurations.

Factory Integration

SGI is renowned for its expertise in shipping complete, fully integrated solutions, whether to implement large Internet scale-out environments or substantial HPC clusters. This starts at the physical level – SGI Rackable Half-Depth servers typically ship fully racked, stacked and cabled. Server and network configuration can be done in the factory, including setting IP addresses, imaging systems, labeling system features and even performing customer-specific asset tagging. These solutions come with a rich set of support and sparing options, and world-class technical consulting is also available.

World-Class Service and Support

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

Leading Efficiency and Density

The SGI unique approach to thermal management begins with each component inside our servers. Leveraging high-efficiency power supplies, memory and Intel® Xeon® processor E5-2600v2 family, and 5600 series, our patented solutions draw the lowest possible wattage and reduce heat output. With innovative AC and DC power alternatives at the system, cabinet and data center level, our power reduction techniques enable any data center to immediately take advantage of reduced power costs.

Our unique half-depth form factor enables back-to-back mounting to achieve high density levels of up to 92 dual-processor compute servers and networking gear per cabinet.

Simplified Serviceability

Time-saving IPMI-based remote management technology helps reduce administrative resources and overhead. A single, highly intuitive interface provides effortless local or remote control with total lights-out management. Ports, connectors and cables are located in front for rapid service and maintenance.

Intel® Xeon® Processors

SGI servers leverage the newest four- to eight-core processors from Intel, including the Intel® Xeon® processor E5-2600v2 family and 5600 series, delivering high workload performance while keeping peak power draws to a minimum. With leading price/performance per watt, our Intel®-based solutions provide a robust and reliable solution for any data center.

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Configuration Specifications

sgi.com/servers

Server	C1001		C2005		
Model Number(s)	C1001-RP6	C1001-TY8	C2005-RP1	C2005-TY6	C2005-TY7
Chassis Profile	1U half-depth	1U half-depth	2U half-depth	2U half-depth	2U half-depth
Max. Processors	Two Intel® Xeon® E5-2600v2 family	Two Intel® Xeon® 5600 or 5500 series	Two Intel® Xeon® E5-2600v2 family	Two Intel® Xeon® 5600 or 5500 series	Two Intel® Xeon® 5600 or 5500 series
Max. Cores	24	12	24	12	12
Chipset	Intel® C600	Intel® 5520	Intel® C600	Intel® 5500	Intel® 5520
Max. Memory	256GB	288GB	256GB	128GB	288GB
Memory slots	16	18	16	8	18
Memory Type	1866/1600/1333/1066/800 MHz DDR3	1333/1066/800 MHz DDR3 ECC reg. or unbuffered	1866/1600/1333/1066/800 MHz DDR3	1333/1066/800 MHz DDR3 ECC reg. or unbuffered	1333/1066/800 MHz DDR3 ECC reg. or unbuffered
Max. Hard Disk Drives & Max. Capacity	One 3.5" or two 2.5" (max. 3TB) 6Gb/s SATA II, SAS or SSD hot-swap	One 3.5" or two 2.5" (max. 3TB) 6Gb/s SATA II, SAS or SSD hot-swap	Five 3.5" or ten 2.5" (max. 15TB) 6Gb/s SATA II, SAS or SSD hot-swap	Five 3.5" or ten 2.5" (max. 15TB) 6Gb/s SATA II, SAS or SSD hot-swap	Five 3.5" or ten 2.5" (max. 15TB) 6Gb/s SATA II, SAS or SSD hot-swap
SAS RAID (RAID Card, Optional)	JBOD, RAID 0, 1	JBOD, RAID 0, 1	JBOD, RAID 0, 1, 5, 6, 10, 50, 60	JBOD, RAID 0, 1, 5, 6, 10, 50, 60	JBOD, RAID 0, 1, 5, 6, 10, 50, 60
Expansion Slots (Optional)	One PCIe 3.0 x16	One PCIe 2.0 x16	Five PCIe 3.0 x8	One PCIe 2.0 x8	Three PCIe 2.0 x8 and one PCIe 2.0 x4
Networking (Onboard)	Three GigE (two Intel® I350 and one Intel® 82574L)	Three GigE (Intel® 82576 and Intel® 82574)	Two or four GigE (Intel® I350-AM)	Dual GigE (Intel® 82576)	Four GigE (Intel® 82576 and Intel® 82574L)
IPMI Remote Management (Optional)	Integrated IPMI 2.0 + Keyboard, Video and Mouse (KVM)	Integrated IPMI 2.0 + KVM	Integrated IPMI 2.0 + KVM	Integrated IPMI 2.0 + KVM	Integrated IPMI 2.0 + KVM
Power Supply	Auto-switching 100–240 VAC (50–60Hz) or 48 VDC	Auto-switching 100–240 VAC (50–60Hz) or 48 VDC	Auto-switching 100-240 VAC (50-60Hz), redundant 1+1, or 48 VDC	Auto-switching 100-240 VAC (50-60Hz), redundant 1+1, or 48 VDC	Auto-switching 100-240 VAC (50-60Hz), redundant 1+1, or 48 VDC
Chassis Mount	Rackable cabinets with back-to-back mounting for double density; standard 19" rack compatible	Rackable cabinets with back-to-back mounting for double density; standard 19" rack compatible	Rackable cabinets with back-to-back mounting for double density; standard 19" rack compatible	Rackable cabinets with back-to-back mounting for double density; standard 19" rack compatible	Rackable cabinets with back-to-back mounting for double density; standard 19" rack compatible
Dimensions (HxWxD)	1.75" (4.4cm) x 17.6" (44.7cm) x 16.1" (40.9cm)	1.75" (4.4cm) x 17.6" (44.7cm) x 16.1" (40.9cm)	3.5" (8.9cm) x 17.6" (44.7cm) x 15.5" (39.4cm)	3.5" (8.9cm) x 17.6" (44.7cm) x 15.5" (39.4cm)	3.5" (8.9cm) x 17.6" (44.7cm) x 15.5" (39.4cm)

These specifications cover only a small number of our most popular design-to-order server models. Please visit sgi.com for full specifications for the entire Rackable server line.

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: Altair® 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 Threadspotter™, Allinea DDT, Intel® Inspector XE • Libraries: Intel® Math Kernel Library, Intel® Integrated Performance Primitives, Intel® Threading Building Blocks, NVIDIA CUDA Toolkit • 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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