

Product Brief

Intel® Server Board S5500HV
Intel® Server System SR1670HV

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A high performance half-width server system engineered to maximize compute density for HPC workloads

Density

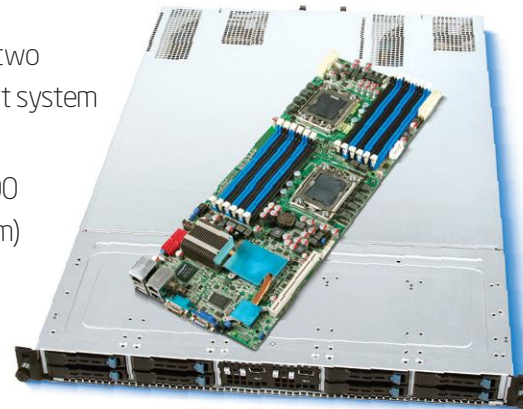
- This dual node system delivers all of the benefits of two complete servers in a single ultra-dense 1U rack mount system

Performance

- Supports up to four total Intel® Xeon® Processor 5600 series on Intel® Microarchitecture (codename Nehalem)
- Highly scalable DDR3 memory (24 DIMMs)
- Full 1 x16 PCIe 2.0 I/O slot in each node

Reduced system cost

- Two boards in a single system saves money
- Independent, high-efficiency power supply for each node (2 x 770W)



Target Applications: *High Performance Computing (HPC) segment applications that require maximum compute density, such as Life Sciences, Energy, Financial Services and Manufacturing*

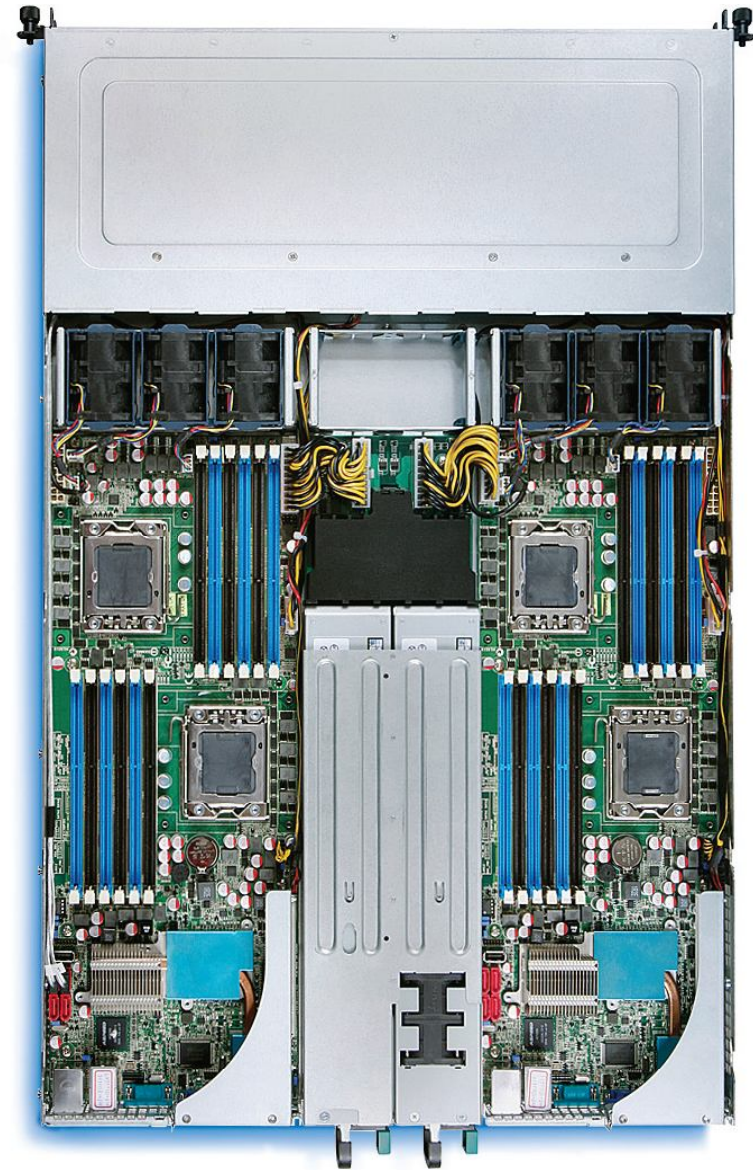


Board Features and Benefits

- **Supports up to two Intel® Xeon® processors 5500 or 5600 series** Delivers HPC performance requirements with increased memory bandwidth, improved energy efficiency, lower TCO and greater application performance
- **Custom half-width form factor (6.3" X 16.7")** Provides twice the compute density of a standard SSI board, with the ability to support 2 boards in a single 1U chassis
- **DDR3 memory capacity and bandwidth** 12 registered or unbuffered DIMMs per board at up to 1333 MHz and 6 memory channels provide the bandwidth to support your high performance throughput and virtualization needs
- **High Performance I/O** One PCI Express* 2.0 x16 slot supports your high speed I/O expansion requirements
- **Flexible storage options** Supports your storage needs with four integrated SATA2 300MB/s ports with RAID 0, 1, 10

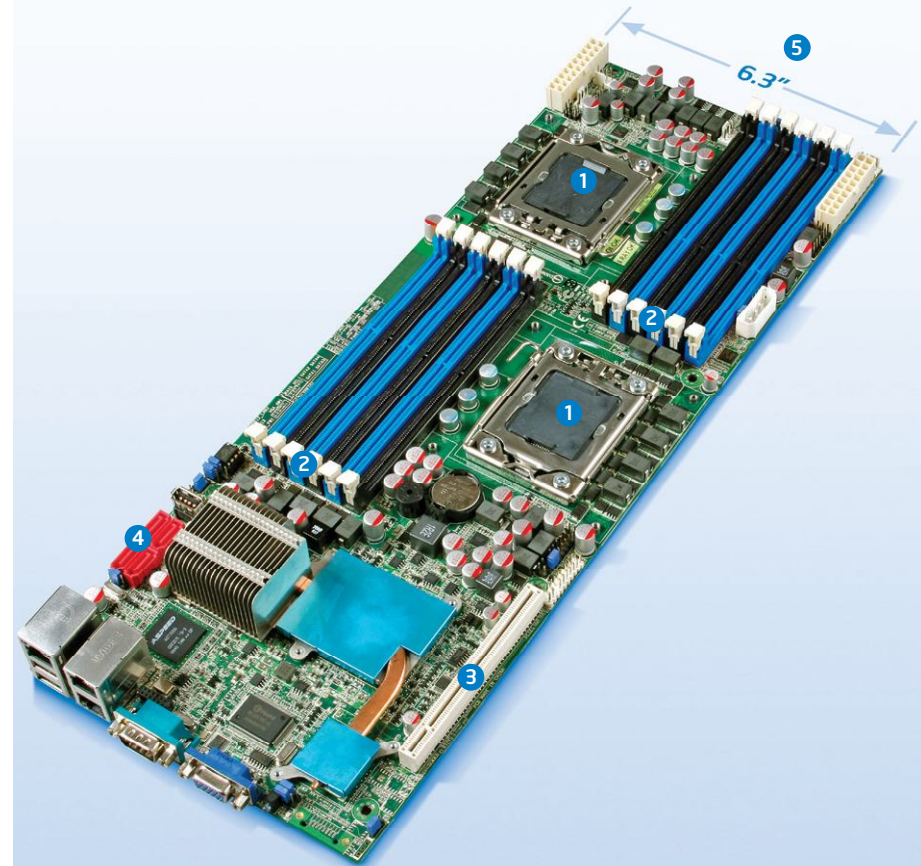
System Features and Benefits

- **System supports two Intel® Server Board S5500HV in a single 1U chassis** Delivers all of the benefits of two servers in a single, ultra-dense 1U rackmount system
- **Independent high-efficiency power supplies** Separate high-efficiency (80 Plus) 770-watt power supplies for each platform for increased availability and individual system maintenance
- **Flexible storage configuration** Total of eight 2.5" hot swap drive bays (Four HDD bays per board)
- **Intel® Enabled Server Acceleration Alliance (Intel® ESAA) Certified** Pre-tested and certified configuration guides ("recipes") for HPC applications such as provisioning and scheduling for clusters



Intel® Server Board S5500HV Technical Specifications

Form Factor	Custom - 6.3" X 16.7"
Processors	Supports one or two Intel® Xeon® Processor 5500 or 5600 series ¹
Chipset	Intel® 5500 chipset with Intel® ICH10R
Intel® Quick Path Technology	4.8GT/s, 5.86GT/s and 6.4GT/s
Memory Capacity	Twelve DDR3 DIMM sockets (Registered or Unbuffered) <ul style="list-style-type: none"> • Six channel native (800/1066/1333MHz)
Memory RAS Features	Channel-Independent Mode Channel-Sparing Mode Demand Scrubbing Mode Patrol Scrubbing Mode
Storage	Four SATA ports (3 Gbps) via ICH10R with Intel® Embedded Server RAID Technology
Intel® RAID Support	Four Integrated SATA II ports supporting Intel® Matrix RAID Technology with Software RAID levels 0/1/5/10 (Windows* Only) and LSI* MegaRAID* with Software RAID 0/1/10 (Windows* and Linux*)
Expansion Slots	1 PCI Express* 2.0 x16 (half-length, low profile)
Integrated LAN	Embedded Intel® 82574L PHYs with Intel® I/O Acceleration Technology
Integrated Graphics	On-board ASPEED* AST2050 with integrated 2D Video Controller and 8 MB Video Memory
Management Hardware	On-board ASPEED* AST2050 with integrated baseboard management controller Baseboard Management Module with IPMI 2.0 Serial-Over-LAN support via a dedicated 10/100 Mbps Management NIC Other Key Features <ul style="list-style-type: none"> • IPMI 2.0; Advanced Encryption Standard (AES) • Secure Socket Layer (SSL) • Dynamic Host Configuration Protocol (DHCP) • Telnet Access, SSH support; SMASH CLP (Command Line) • Remote Update Firmware • Remote Reboot • Remote Power On/Off; PEF Configuration



- 1 Up to two Intel® Xeon® Processors
- 2 12 DDR3 DIMMs for support of 96GB
- 3 PCIe 2.0 X 16 riser slot supporting 1 PCIe expansion card
- 4 4 SATA ports
- 5 Custom form factor (6.3 X 16.7")

Safety and EMC Regulatory Compliance

Regulatory compliance for an Intel host system is based on the use of an Intel server base board that was tested in the host chassis and found compliant. Intel server base boards and host chassis are tested to Class A EMC requirements. Intel server products comply with RoHS (Restriction of Hazardous Substances).

Region (Compliance Obtained)	Board Markings	Host Chassis Markings
Argentina (IRAM)	Regulation N/A	
Australia (ACA) / New Zealand (MED)		
Belarus	Regulation N/A	
Canada		
	ICES-003	
China	Regulation N/A	
Europe (EU Directives) - LVD & EMC require CE mark; No mark required for RoHS; WEEE marking added voluntarily for end integrator convenience)		
Germany GS for Chassis Only; German Green Dot (Duales System Deutschland) for Board Packaging Only		
International Compliance (CB Report & CISPR Emission & Immunity)	Marking Not Required	
Japan (VCCI for chassis only) & Japan Recycling Marks on Board Retail Packaging Only	Regulation N/A	
		Marking Not Required
Korea (KCC)		
Russia (GOSSTANDART)	Regulation N/A	
Taiwan (BSMI)		
Ukraine (UKRTEST)	Regulation N/A	Marking Not Required
United States NRTL & FCC (For Board Products FCC Notation May Be in Documentation)		
	This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation	

¹ When installing two processors, both processors must be from the same processor series; either two Intel® Xeon® processor 5500 series or two Intel® Xeon® processor 5600 series. Out of the box support for the Intel Xeon 5600 series processors will be indicated by the addition of the letter "R" at the end of the Product Order Code. For boards and systems currently supporting the Intel Xeon 5500 series, a BIOS update is required before installing the 5600 series processor(s). Refer to <http://support.intel.com> for more information.

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