PRODUCT BRIEF

Small and Medium Business, Storage, Networking, Web Hosting, and Security Appliances
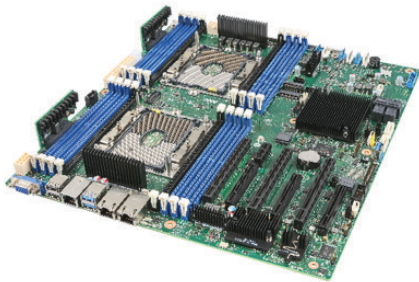**Intel® Server Board S2600ST Product Family**
Featuring the Intel® Xeon® Processor Scalable Family

(intel®)

Flexible General–Purpose Server Board in a Standard Form Factor

Powerful Compute, Flexible I/O, Storage and Networking Capacity

The Intel® Server Board S2600ST product family delivers robust features and powerful performance in a standard 12" x 13" EEB form factor for flexibility and ease of adoption. Featuring the Intel® Xeon® processor Scalable family, high PCIe* lane availability and SAS/SATA/NVMe* flexibility, it provides a cost-effective option for pedestal, rack mount or custom systems. The S2600ST is ideal for use in small and medium business, storage, networking, web hosting, and security appliances where feature capacity and price-performance balance is key.

Standard EEB Form Factor with Flexible I/O, Storage and Networking Capacity

- Dual CPU sockets with support for the Intel® Xeon® processor Scalable family

- 16 DDR4 DIMM slots

- Six 3.0 PCIe* slots, providing maximum configuration flexibility

- Up to four on-board PCIe* OCuLink* connectors for direct attach NVMe* 2.5" SSD support

- Operating system boot option via two 80mm M.2 connectors (x2 and x4 PCIe & SATA)

- Networking flexibility with dual 10GBase-T and Dual 10G SFP+ modules

- Up to 150Gbps high speed compression via three Intel® QuickAssist Technology (Intel® QAT) engines

Ideal for Performance Storage, Networking, Web Hosting, and Security Appliances

The S2600ST product family is optimized for the Intel Xeon processor Scalable family. This latest generation processor is designed for performance, with high scalability and resiliency with no I/O compromise, and supports a wide range of existing and emerging workloads. The S2600ST product family uses a number of key processor advancements:

- **Intel® QuickAssist Technology** delivers up to 150Gbps performance for authentication, public key functions, and compression/decompression workloads, while freeing up CPU cycles and reducing demands on the server

- **NVMe* Enablement** alleviates the I/O bottleneck with high performance and capacity

- **Integrated 10G Ethernet with RDMA** eliminates TCP/IP overhead by offloading transport to NIC for faster switching and packet filtering

- **Intel® AVX-512** enables tiering, de-dup, thin provisioning and exceptional processing of compute-intensive tasks
- **Intel® Virtual RAID on CPU (Intel® VROC)** enables high-performance, highly scalable CPU-based RAID with NVMe, with high IOPS and low latency

Verify Authenticity with Intel® Transparent Supply Chain

To address customer security concerns and guard against counterfeiting and malware, the S2600ST family features the Intel® Transparent Supply Chain which enables the ability to verify the authenticity of board components and firmware. Features include:

- Digitally signed statement of conformance
- Platform Certificates provided with a secured Firmware Trusted Platform Module (TPM)
- Server component data tracked and saved for 20 years
- Firmware load verification

Built with Intel® Quality, Reliability and Performance

Intel® Server Products are backed by Intel's design excellence and manufacturing expertise to deliver processing power with high levels of flexibility, manageability and reliability. Product and design quality is paired with 3-year standard warranties and robust technical and incident resolution support to ensure customer satisfaction.

Flexible, Feature Rich, Powerful, and Cost-Effective

Intel® Sever Board S2600ST is available in two feature-optimized family SKUs:

- **S2600STB** – Base SKU, including dual 10GbE integrated LAN ports
- **S2600STQ** – Integrated Intel® QAT support for bulk cryptography, public key cryptography, and up to 150Gbps high speed compression

Common use cases:

- Powerful small and medium business servers
- Purpose-built appliances for networking, telecommunications, storage and security
- Web hosting and virtualization

INTEL® SERVER BOARD S2600ST PRODUCT FAMILY SPECIFICATIONS

SERVER BOARD SPECIFICATION	DETAILS
Board SKUs	S2600STB, S2600STQ
Board Dimensions	12" x 13" SSI EEB form factor
Intel Processor	Intel® Xeon® processor Scalable family (Platinum, Gold, Silver, and Bronze)
Processor Socket Type	Two Socket-P LGA3647
Maximum Processor TDP	205W
Intel Chipset	Intel® C624 Chipset – S2600STB
	Intel® C628 Chipset – S2600STQ
Max DIMM slots	16 DIMMs Total - 6 channels per processor, 2-1-1 configuration
Memory Type	DDR4 RDIMMs or LRDIMMs

Memory Capacity	Up to 1.0TB for Gold/Platinum CPUs. 512GB for Silver/Bronze CPUs
Memory Speed	2666 MT/s[1] @ 1 DPC and 2 DPC (DPC = DIMMs per channel)
Memory Voltage	1.2V, DDR4 Standard I/O voltage
Video	Integrated 2D video controller with 128MB DDR4 memory
Networking	• Dual 10GBase-T ports On-Board • Dual SFP+ via optional accessory riser card
Intel® QuickAssist Technology	Supported on S2600STQ
TPM Support	1 connector for optional Intel® TPM 2.0 Module
Board Weight	1.5 Kg (3.31 lbs.)
Packaging Dimensions	Single Pack: 460(L)X376(W)X108(H)mm Bulk Pack: 586(L)X464(W)X480(H)mm (10 boards per pack)
Packaging Weight	0.87 Kg (single pack), 5.2kg (bulk pack)
Warranty	3-year limited warranty

I/O CONNECTORS	DETAILS
USB	Two external USB 3.0 ports Two external USB 2.0 ports One internal Type-A USB 2.0 port One internal 20-pin connector for optional 2x USB 3.0 port Front Panel support
Serial	One internal DH-10 Serial-A port header for optional rear serial port support
Video	One DB-15 VGA External connector
Front Panel SSI-EEB	One 2x15 pin SSI-EEB compliant front panel header
Storage	Two single port 7-pin SATA 6 Gbps connectors
	Two 4-port SATA Mini-SAS HD Connectors
	Two 80mm M.2 connectors (x2 and x4 PCIe* & SATA)
	PCIe* OCuLink* Connectors for direct attach NVMe* 2.5" SSDs • 4 connectors – S2600STB • 2 connectors – S2600STQ
Network	Two Integrated 10GbE Ports

EXPANSION OPTIONS	DETAILS
PCIe Add-in Card Support	Six PCIe* slots with support for up to six PCIe 3.0 add-in cards – See product TPS (Use of all PCIe slots requires dual processors populated.)
LAN Riser	SFP+ card for onboard Ethernet/Fiber controller physically aligned to Slot 5

SERVER MANAGEMENT & SECURITY FEATURES	DETAILS
Embedded Server Management Features	Integrated Baseboard Management Controller, IPMI 2.0 compliant Dedicated RJ45 1GbE server management port Includes Standard Server Management Features – See product TPS Support for Intel® Server Management Software
Advanced Server Management Features	Support for Intel® Remote Management Module 4 Lite accessory option enabling Integrated KVM and Remote Media Redirection
Intel® Transparent Supply Chain	Includes Statement of Conformance and Platform Certificate

INTEL® SERVER CHASSIS P4000 SPECIFICATIONS

SPECIFICATIONS	DETAILS
Type	Pedestal chassis, Optional 4U rack mount
Max Processor TDP	Up to 205W depending on configuration
Chassis Dimensions	17.24" (438mm) x 6.81" (173mm) x 24.9" (612mm)
Packaging Dimensions	825mm x 610mm x 370mm
Server Board Support	Intel® Server Board S2600ST product family (not included)
Power Supply Options	P4304XXMFEN2: single non-redundant 550W PSU included
	P4304XXMUXX: supports redundant 750W or 1600W PSU (not included)
System Fan Support	P4304XXMFEN2: Two 120 x 38mm non-redundant fans
	P4304XXMUXX : Five 80 x 38mm redundant hot-swap fans

EXPANSION OPTIONS	PCIE* SOURCE	DETAILS
PCIe Slot 1	CPU1	x8 PCIe* Gen 3 electrical & mechanical
PCIe Slot 2	CPU1	x16 PCIe Gen 3 electrical & mechanical (Riser Capable)
PCIe Slot 3	CPU1	x8 PCIe Gen 3 electrical & mechanical
PCIe Slot 4	CPU1	x16 PCIe Gen 3 electrical & mechanical
PCIe Slot 5	CPU0	x8 PCIe Gen 3 electrical & mechanical
PCIe Slot 6	CPU0	x16 PCIe Gen 3 electrical & mechanical (Riser Capable)
LAN RISER	CPU0	SFP+ card for onboard Ethernet/Fiber controller physically aligned to Slot 5

PCIe Gen 3.0 unless noted. Use of all PCIe slots requires dual processors populated.

STORAGE	TOTAL # OF DRIVES	TYPE
Front Peripheral Bays	Three (3) at 5.25" Half-Height	Half-height drive bays for CD/DVD-ROM or tape drives
		Can be used as one 3.5" removable media drive bay
Fixed Drive Support	Four (4) at 3.5" or 2.5"	Up to four 3.5"or 2.5" fixed SATA drives, cabled SAS drives not supported

ADDITIONAL STORAGE OPTIONS	TOTAL # OF DRIVES	TYPE
Hot-Swap Drive Bay AUP4X35S3HSDK	Eight (8) at 3.5" or 2.5"	4x3.5", two per system, also supports 2.5"
Hot-Swap Drive Bay AUP8X25S3DPDK	Sixteen (16) at 2.5"	8x2.5", two per system, dual-port SAS
Hot-Swap Drive Bay AUP8X25S3NVDK	Sixteen (16) at 2.5"	8x2.5", two per system, combo drive bay NOTE: P4000 chassis is limited to four NVMe SSDs
SAS Expander RES3TV360	Sixteen (16) at 2.5"	36-port 12G SAS Expander, use with 8-port Intel® RAID Adapter

Mixing of SAS/SATA/NVMe drives is permitted.

Mixing of 3.5" and 2.5" drives is supported; however, mixing of 3.5" and 2.5" drive cage upgrade kits is not supported

INTEL® SERVER BOARD AND CHASSIS ORDER CODES

ORDER CODE	TYPE	DESCRIPTION
S2600STB	Server Board	Server board supports two Intel® Xeon® processor Scalable family up to 165W TDP each, 16 DIMMs, two 10Gb Ethernet* ports, 6 PCIe* slots
S2600STQ	Server Board	Server board supports two Intel Xeon processor Scalable family up to 165W TDP each, 16 DIMMs, two 10Gb Ethernet ports, 6 PCIe* slots, Intel® QuickAssist Technology (Intel® QAT)
P4304XXMFEN2	4U Pedestal Chassis	4U Pedestal chassis, fixed 4x 3.5" HDD support. Optimized for configurations with fixed fans and PSU.
P4304XXMUXX	4U Pedestal Chassis	4U Pedestal chassis, fixed 4x 3.5" HDD support. Optimized for configurations with hot-swap fans, PSUs and drives (PSUs and drive cages not included).

See Configuration Guide for Accessory Kit and Spare Order Codes

For more information on Intel Server Products and Solutions visit: intel.com/serverproducts

For more information on Intel® RAID visit: intel.com/RAID

For product specifications visit: ark.intel.com

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1 The maximum memory speed supported depends on the processor used.