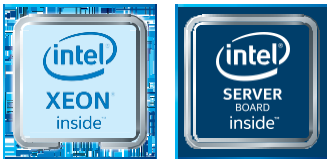
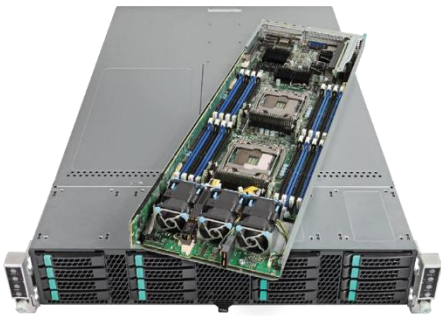


Density Optimized System with Rich Memory and I/O Features

Intel® Server Board S2600TP Product Family featuring Intel® Xeon® processor E5-2600 v4 family

Hyper-Converged Infrastructure and High Performance Computing



Optimized for Processor and Memory Capacity

The Intel® Server Board S2600TP product family is a purpose built, rack-optimized server board ideal for use in hyper-converged, data analytics, storage, cloud and high performance computing applications. Designed to support 16 DIMM slots per server board at 2 DIMMs per channel and the Intel® Xeon® E5-2600 v4 processor family, the S2600TP family maximizes memory and processor bandwidth to meet demanding compute use requirements.

High Density 2U Rack Server with High Speed Networking and I/O

- Eight Intel Xeon processor E5-2600 v4 product family per 2U system
- Liquid cooling friendly for highest performing processors
- Integrated on-board FDR InfiniBand* port per board at up to 56 Gb/s
- Dual 10GBaseT or 10G SFP+ node configurations via an I/O module
- Dual 1GbE integrated LAN ports and 1GbE dedicated management port per board
- Hot-swappable compute modules, storage, and power supplies
- x16 PCIe slot for additional network options

Verify Authenticity with Intel® Transparent Supply Chain

To address customer security concerns and guard against counterfeiting and malware, the S2600TP 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
- 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.

SERVER BOARD SPECIFICATIONS

Server Board Specification	Detail	
Board Options	BBS2600TPR	BBS2600TPFR
On-board InfiniBand*	None	56Gb/s, 1 rear QSFP+ port
Board Dimensions	6.8" x 18.9"	6.8" x 18.9"
Quantity per Box	10	10
Packaging Dimensions	578 x 438 x 301mm, 10 per box	578 x 438 x 301mm, 10 per box
Board Weight	15.2 kg	15.9 kg
Packaging Weight	20.7 kg	21.4 kg
CPU	Dual socket Intel Xeon processor E5-2600 v4/v3 product families	
Maximum TDP	Board only: 160W Compute Module or System: 145W	
Socket	Socket-R3 LGA2011-3	
Chipset	Intel® C612 chipset	
Memory Type	DDR4 RDIMMs or LRDIMMs at 2400MT/s maximum	
Memory Capacity	Up to 512GB using 32GB DIMMs	
Max DIMM slots	16 DIMMs, 2 DIMMs per channel, 4 channels per processor	
Memory Speed	1600MT/s, 1866MT/s, 2133MT/s, 2400MT/s ¹	
Memory Voltage	1.2V, DDR4 Standard I/O voltage	

External I/O Connectors	Detail	
USB	One stacked two-port USB 2.0 connector	
Networking	Two RJ-45 1GbE Network Interface Controller ports One dedicated RJ-45 port for server management One InfiniBand* FDR QSFP+ port (S2600TPFR only)	
Video	DB-15 VGA connector	

Internal I/O Connectors and Headers	Detail	
USB	One USB 2.0 Connector	
Serial	One DH-10 Serial Port A connector	
Control Panel	One 1x12 pin control panel header	
Fan Module	One 2x7 pin header for system fan module	
SATA DOM	One 6Gb/s SATA DOM port	
SATA	Four 6Gb/s SATA connectors	
Intel® Remote Management Module 4 Lite (Intel® RMM 4)	One 2x4 pin header for Intel RMM4 Lite	
Storage Upgrade Key	One 1x4 pin header for Storage Upgrade Key	
Power	One 1x8 pin backup power connector	

Expansion	Detail	
Riser Slots	Riser Slot 1 (CPU1)	x16 PCIe* 3.0 Lanes
	Riser Slot 2 (CPU1)	x8 IOM support or custom development access to x24 PCIe* 3.0 lanes (S2600TPR) or x16 PCIe 3.0 lanes (S2600TPFR)
	Riser Slot 3 (CPU2)+	Bridge board for Extended I/O or custom development access to x24 PCIe 3.0 lane Custom development access to x16 PCIe 3.0 lanes
	Riser Slot 4 (CPU2)+	Custom development access to x16 PCIe 3.0 lanes
Bridge board for Extended I/O	Four SATA 6Gb/s signals Front control panel signals One 6Gb/s signal for SATA DOM One USB 2.0 signal	
I/O Module	Single I/O module option via Riser 2, requires AXXKPTPIOM/ AXXKPTPM2IOM.	

+Note: All board features are not accessible in Intel® Compute Module or Intel® Server System form factor.

COMPUTE MODULE SPECIFICATIONS

Compute Module Specification	Details			
Compute Module	HNS2600TPR	HNS2600TPFR	HNS2600TP24R	HNS2600TP24SR
Form Factor	1U	1U	1U	1U
Key features	No InfiniBand	On-board InfiniBand	Dual 10GBaseT	Dual 10G SFP+
Packaging Dimensions	716 x 269 x 158mm	716 x 269 x 158mm	716 x 269 x 158mm	716 x 269 x 158mm
Module Weight	3.5kg	3.6kg	3.56kg	3.56kg
Packaging Weight	4.7kg	4.8kg	4.78kg	4.78kg
Integrated Bridge Board	6G SATA	6G SATA	12G SAS/NVMe* Combo	12G SAS/NVMe Combo
Optional Bridge Boards	12G SAS 12G SAS w/ RAID 5	12G SAS 12G SAS w/ RAID 5	None	None
Riser 1 Support	x16 PCIe 3.0	x16 PCIe 3.0	x16 PCIe 3.0	x16 PCIe 3.0
Riser 2 Support	Optional I/O module requires AXXKPTPIOM or AXXKTPM2IOM	Optional I/O module requires AXXKPTPIOM	Integrated 10GbE network module	
Maximum Processor TDP	145W			
Heat Sink	One Cu/Al 84mm x106mm heat sink for CPU 1, One Ex-Al 84mm x106mm heat sink for CPU 2			
Fans	Three 40x56mm dual rotor system fans			
Air Duct	One transparent air duct			
Server Management	Integrated Baseboard Management Controller, IPMI 2.0 compliant, Dedicated RJ45 management port, Remote KVM Management and device mapping available via Intel RMM4-Lite accessory			
BMC Management	IPMI 2.0 compliant			
BIOS Type	UEFI BIOS			
Warranty	3-year limited warranty			

Chassis SPECIFICATIONS

Specification	H2312XXXKR2	H2216XXXKR2	H2224XXXKR2	H2224XXLR2
Chassis Dimensions	3.42" x 17.24" x 30.35" 86.9 x 438 x 771mm	3.42"s x 17.24" x 28.86" 86.9 x 438 x 733mm	3.42"s x 17.24" x 28.86" 86.9 x 438 x 733mm	3.42"s x 17.24" x 28.86" 86.9 x 438 x 733mm
Package Dimensions	983 x 577 x 260mm	983 x 577 x 260mm	983 x 577 x 260mm	983 x 577 x 260mm
Chassis Weight	21.5kg	20.5kg	20.6kg	20.6kg
Package Weight	29.5kg	28.4kg	28.9kg	28.9kg
Compute Module support	HNS2600TPR HNS2600TPFR	HNS2600TPR HNS2600TPFR	HNS2600TP24R HNS2600TP24SR	HNS2600TP24R HNS2600TP24SR
PSU (W)	1600W AC CRPS	1600W AC CRPS	1600W AC CRPS	2130W AC CRPS
PSU Rating	80 Plus Platinum	80 Plus Platinum	80 Plus Platinum	80 Plus Platinum
PSU Configuration	Two, supporting 1+0, 1+1	Two, supporting 1+0, 1+1	Two, supporting 1+0, 1+1	Two, supporting 1+0, 1+1
Fans	One per PSU	One per PSU	One per PSU	One per PSU
Drive Bays SATA/SAS	12 x 3.5"	16 x 2.5"	24 x 2.5"	24 x 2.5"
NVMe options	None	None	8 total, 2 per module	8 total, 2 per module

Storage Options	Size	# of Drives	Type
Hot-Swap Drive Bays	3.5"	Twelve (12)	6Gbps SATA drives -or- 12Gbps SAS drives with optional SAS bridge board
	2.5"	Sixteen (16)	6Gbps SATA drives -or- 12Gbps SAS drives with optional SAS bridge board
		Twenty-four (24)	12Gbps SAS drives and selected SATA-based Intel® SSD2
PCIe*SFF (NVMe) SSD Support	2.5"	Eight (8)	2 PCIe* SFF (NVMe) SSD per module (H2224XXXKR2/H2224XXLR2 only)

ORDER CODES**Server Board, Compute Module and Chassis Order Codes**

Order Code	Type	Description
BBS2600TPR	Server Board	Intel® Server Board S2600TPR, no on-board InfiniBand Support for Intel Xeon processor E5-2600 v4/v3 product families and 16 DIMMs
BBS2600TPFR	Server Board	Intel® Server Board S2600TPFR on-board InfiniBand* (56Gb/s) Support for Intel Xeon processor E5-2600 v4/v3 product families and 16 DIMMs
HNS2600TPR	Compute Module	Intel® Compute Module HNS2600TPR, 1U, includes Intel® Server Board S2600TPR, 6G SATA bridge board. Support for Intel Xeon processor E5-2600 v4/v3 product families and 16 DIMMs
HNS2600TPFR	Compute Module	Intel® Compute Module HNS2600TPFR, 1U, includes Intel® Server Board S2600TPFR, 6G SATA bridge board. Support for Intel Xeon processor E5-2600 v4/v3 product families and 16 DIMMs
HNS2600TP24R	Compute Module	Intel® Compute Module HNS2600TP24R, 1U, includes Intel® Server Board S2600TPR, 12G SAS/NVMe combo bridge board, dual 10GBaseT. Support for Intel Xeon processor E5-2600 v4/v3 product families and 16 DIMMs
HNS2600TP24SR	Compute Module	Intel® Compute Module HNS2600TP24R, 1U, includes Intel® Server Board S2600TPR, 12G SAS/NVMe combo bridge board, dual 10G SFP+. Support for Intel Xeon processor E5-2600 v4/v3 product families and 16 DIMMs
H2216XXKR2	2U Chassis	Intel® Server Chassis H2216XXKR2 includes dual 1600W PSUs. Supports 16x 2.5" 6Gb SAS/SATA drives
H2312XXKR2	2U Chassis	Intel® Server Chassis H2312XXKR2 includes dual 1600W PSUs. Supports 12x 3.5" 6Gb SAS/SATA drives
H2224XXKR2	2U Chassis	Intel® Server Chassis H2224XXKR2 includes dual 1600W PSUs. Supports 24 x 2.5" 12Gb SAS drives and SATA-based Intel® SSD ²
H2224XXLR2	2U Chassis	Intel® Server Chassis H2224XXLR2 includes dual 2130W PSUs. Supports 24 x 2.5" 12Gb SAS drives and SATA-based Intel® SSD ²

See Configuration Guide for Accessory Kit and Spare Order Codes

Intel® I/O Expansion Modules

I/O module Order Code	Description
AXX4P1GBPWL1OM	Quad RJ45 1GbE: Intel® I350-AE4 GbE I/O module
AXX10GBNIA1OM	Dual SFP+ 10GbE: Intel® 82599EB 10 GbE I/O module
AXX10GBTWLHW3	Dual RJ45 10GbE: Dual Port 10GBaseT I/O module, based on Intel® Ethernet Controller X540
AXX1FDRIB1OM	Single Port QSFP FDR - InfiniBand ConnectX-3* I/O Module

SAS Intel® Integrated RAID Controllers

SAS Order Code	Description
RS25SB008	Intel® RAID Controller, 6Gbps, 8P External, LSI 2208, DDR3 1GB
RS3GC008	Intel® RAID Controller, 12Gbps, 8P External, LSI3108, DDR3 1GB
RS3SC008	Intel® RAID Controller, 12Gbps, 8P External, LSI3108, DDR3 1GB

Product does not include memory, processors, or hard drives. For compatibility information please refer to the configuration guide at www.intel.com/support.

For additional RAID modules and add-in-cards, visit www.intel.com/go/RAID

For more information on Intel® server solutions visit: intelserveredge.com

For more information on Intel® Server Products visit: intel.com/intelserverssystem

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

For product specifications visit: ark.intel.com

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

² Refer to Intel® Server Configurator Tool (<https://serverconfigurator.intel.com>)

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