

High Memory Performance in a Density Optimized Form-Factor

Intel® Server Board S2600KP Product Family featuring Intel® Xeon® processor E5-2600 v4 family

High Performance Computing and Data Analytics

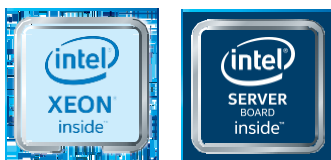


Optimized for Processor and Memory Capacity

The Intel® Server Board S2600KP product family is a purpose built, two-socket, half-width, liquid cooling friendly server board ideal for use in a high-density rack system. Designed to support eight DDR4 DIMM slots per server board at 1 DIMM per channel and the Intel® Xeon® processors E5-2600 v4 family, the S2600KP provides streamlined memory configuration to meet the demanding requirements of high performance computing and data analytics applications.

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

- Eight Intel Xeon processor E5-2600 v4 and up to 1TB memory per 2U system
- Liquid cooling friendly for highest performing processors
- Integrated on-board FDR InfiniBand* port per board at up to 56 Gb/s
- Hot-swappable compute modules, storage, and power supplies
- Dual 1GbE integrated LAN ports and 1GbE dedicated management port per board
- 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 S2600KP 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 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.

SERVER BOARD SPECIFICATIONS

Server Board Specification	Details		
Board Options	BBS2600KPR	BBS2600KPFR	BBS2600KPTR
On-board InfiniBand*	None	56Gb/s, 1 rear QSFP+ port	None
Board Dimensions	6.4" x 17.7"	6.4" x 17.7"	6.4" x 17.7"
TPM	N/A	N/A	TPM 1.2
Quantity per Box	10	10	10
Packaging Dimensions	553 x 242 x 463mm, 10 per box	553 x 242 x 463mm, 10 per box	553 x 242 x 463mm, 10 per box
Board Weight	10.0 kg	10.4 kg	10.0 kg
Packaging Weight	12.62 kg	12.62 kg	12.62 kg
CPU	Dual sockets for Intel® Xeon® processor E5-2600 v4/v3 product family		
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 ¹ maximum		
Memory Capacity	Up to 512GB using 64GB DIMMs		
Max DIMM slots	8 DIMMs, 1 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	Details
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 (S2600KPFR only)
Video	DB-15 VGA connector

Internal I/O Connectors and Headers	Details
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	Details	
Riser Slots	Riser Slots	x16 PCIe* 3.0 lanes
	Riser Slot 2 (CPU1)	x8 IOM support or custom development access to x24 PCIe* 3.0 lanes (S2600KPR) or x16 PCIe* 3.0 lanes (S2600KPFR)
	Riser Slot 3 (CPU2)+	Bridge board for Extended I/O or custom development access to x24 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/ AXXKTPM2IOM.	

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

Intel® Transparent Supply Chain	Details
Includes Statement of Conformance	Yes
Includes Platform Certificate	Yes (BBS2600KPTR only)
TPM Version	1.2 (BBS2600KPTR only)

Intel® Compute Module SPECIFICATIONS

Specifications	Details	
Compute Module	HNS2600KPR	HNS2600KPFR
Form Factor	1U	1U
Key features	No InfiniBand*	On-board InfiniBand*
Packaging Dimensions	716 x 269 x 158mm	716 x 269 x 158mm
Module Weight	3.4kg	3.4kg
Packaging Weight	4.76kg	4.76kg
Integrated Bridge Board	6G SATA	6G SATA
Optional Bridge Boards	12G SAS 12G SAS w/ RAID 5	12G SAS 12G SAS w/ RAID 5
Riser 1 Support	x16 PCIe* 3.0	x16 PCIe* 3.0
Riser 2 Support	Optional I/O module requires AXXKPTPIOM or AXXKPTPM2IOM	Optional I/O module requires AXXKPTPIOM
Maximum Processor TDP	145W	
Heat Sink	One Cu/Al 91.5x91.5mm heat sink for CPU 1 One Ex-Al 91.5x91.5mm 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	H2312XXKR2	H2312XXLR2	H2216XXKR2	H2216XXLR2
Chassis Dimensions	3.42" x 17.24" x 30.35" 86.9 x 438 x 771mm	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
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	21.5kg	20.5kg	20.5kg
Package Weight	29.5kg	29.5kg	28.4kg	28.4kg
Compute Module support	HNS2600KPR HNS2600KPF	HNS2600KPR HNS2600KPFR	HNS2600KPR HNS2600KPFR	HNS2600KPR HNS2600KPFR
PSU (W)	1600W AC CRPS	2130W 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"	12 x 3.5"	16 x 2.5"	16 x 2.5"

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

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

Order Code	Type	Description
BBS2600KPR	Server Board	Intel® Server Board S2600KPR, no on-board InfiniBand* Support for Intel Xeon processor E5-2600 v4/v3 product family and 8 DIMMs
BBS2600KPFR	Server Board	Intel® Server Board S2600KPR, on-board InfiniBand* (56Gb/s) Support for Intel Xeon processor E5-2600 v4/v3 product family and 8 DIMMs
BBS2600KPTR	Server Board	Intel® Server Board S2600KPTR with TPM1.2, no on-board InfiniBand* Support for Intel Xeon processor E5-2600 v4/v3 product family and 8 DIMMs
HNS2600KPR	Compute Module	Intel® Compute Module HNS2600KPR, 1U, includes Intel® Server Board S2600KPR, 6G SATA bridge board. Support for Intel® Xeon® processor E5-2600 v4/v3 product family and 8 DIMMs
HNS2600KPFR	Compute Module	Intel® Compute Module HNS2600KPFR, 1U, includes Intel® Server Board S2600KPFR, 6G SATA bridge board. Support for Intel® Xeon® processor E5-2600 v4/v3 product family and 8 DIMMs
H2216XXKR2	2U Chassis	Intel® Server Chassis H2216XXKR2 includes dual 1600W PSUs. Supports 16x 2.5" 6Gb SAS/SATA drives
H2216XXLR2	2U Chassis	Intel® Server Chassis H2216XXLR2 includes dual 2130W 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
H2312XXLR2	2U Chassis	Intel® Server Chassis H2312XXLR2 includes dual 2130W PSUs. Supports 12x 3.5" 6Gb SAS/SATA drives

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 ports: Intel® I350-AE4 GbE I/O module
AXX10GBNIA1OM	Dual SFP+ 10GbE ports: Intel® 82599EB 10 GbE I/O module
AXX10GBTWLHW3	Dual RJ45 10GbE ports: Dual Port 10GBaseT I/O module, based on Intel® Ethernet Converged Network Adapter X540
AXX1FDRIB1OM	Single Port QSFP FDR - InfiniBand* ConnectX-3* I/O Module
AXX1P40FRT1OM	Single Port QSFP+, 40GbE - Ethernet 40G I/O Module XL710-QDA1
AXX2P40FRT1OM	Dual Port QSFP+, 40GbE - Ethernet 40G I/O Module XL710-QDA2

SAS Intel® Integrated RAID Controllers

SAS Order Code	Description
RS25GB008	Intel® RAID Controller, 6Gbps, 8P External
RS25NB008	Intel® RAID Controller, 6Gbps, 8P External, LSI 2208, DDR3 1GB
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

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

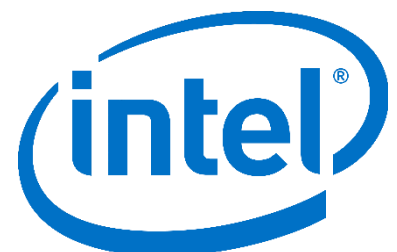
For more information on Intel® server solutions visit: intelserveredge.com

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

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

For product specifications visit: ark.intel.com

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



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

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