Intel® Server S2600BP Product Family Configuration Guide

Intel® Server Board S2600BP Product Family

Intel® Compute Module HNS2600BP Product Family

Intel® Server Chassis H2000G Product Family

A reference document used to assist with ordering parts and accessories available to configure an Intel server system based on the Intel® Server S2600BP product family.

Rev 1.0

JULY 2017

Intel® Server Products and Solutions

<Blank Page>

Document Revision History

Date Published	Revision	Revision Change Description
July 2017	1.0	• Initial Release

Disclaimer

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Learn more at Intel.com, or from the OEM or retailer.

You may not use or facilitate the use of this document in connection with any infringement or other legal analysis concerning Intel products described herein. You agree to grant Intel a non-exclusive, royalty-free license to any patent claim thereafter drafted which includes subject matter disclosed herein.

No license (express or implied, by estoppel or otherwise) to any intellectual property rights is granted by this document.

The products described may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

Intel disclaims all express and implied warranties, including without limitation, the implied warranties of merchantability, fitness for a particular purpose, and non-infringement, as well as any warranty arising from course of performance, course of dealing, or usage in trade.

Intel, the Intel logo and Xeon are trademarks of Intel Corporation in the U.S. and/or other countries.

*Other names and brands may be claimed as the property of others.

Copyright © 2017 Intel Corporation. All Rights Reserved.

Contents

1 Intel® Server Family Overview 1
1.1 Intel® Server Board S2600BP Product Family 5
1.2 Intel® Compute Module HNS2600BP Product Family 8
1.3 Product Family Summary Chart 14
2 Server Building Block Configuration 16
2.1 Intel® Server Board S2600BP Product Family Options 17
iPC – BBS2600BPB 17
iPC – BBS2600BPS 18
iPC – BBS2600BPQ 19
2.2 Intel® Compute Module S2600BP Product Family SKUs 20
iPC – HNS2600BPB24 21
iPC – HNS2600BPS 22
iPC – HNS2600BPS24 23
iPC – HNS2600BPQ 24
iPC – HNS2600BPQ24 25
2.3 Intel® Server Chassis H2000G Product Family SKUs 26
Intel Product Code (iPC): H2312XXLR3 27
Intel Product Code (iPC): H2224XXLR3 28
Intel Product Code (iPC): H2204XXLRE 29
3 Accessory Options 30
3.1 Bridge Board Options 30
3.2 PCIe* Riser Card Accessory Options 33
3.3 Mount Kits 34
3.4 Miscellaneous Accessory Options 35
4 Intel® RAID Controller Add-in Cards 37
4.1 Intel® Integrated RAID Module RMS3 Product Family – SAS 3.0 (12 Gb/s) 37
4.2 Intel® RAID Accessory Options 40
5 Spare and Replacement Parts (FRUs) 42
6 Extended Warranty 48

Glossary of Terms.....49

Figures

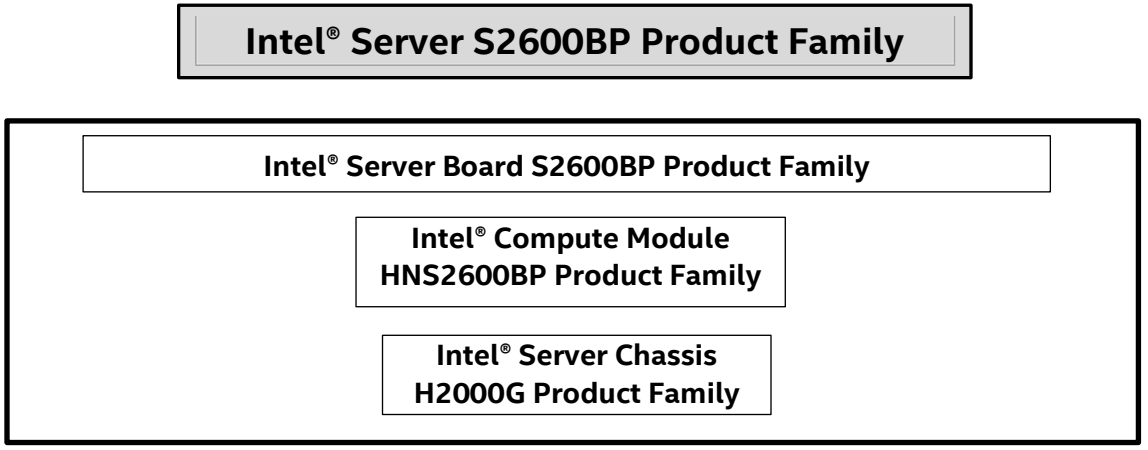
Figure 1. Intel® Server Board S2600BP On-board Features 5
Figure 2. Intel® Compute Module HNS2600BP Feature Set Identification 8
Figure 3. Intel® Compute Module HNS2600BP Product Family – Rear Connectors 8
Figure 4. Intel® Server Chassis H2312XXLR3 13
Figure 5. Intel® Server Chassis H2224XXLR3 13
Figure 6. Intel® Server Chassis H2204XXLRE 13
Figure 7. Intel® Server Chassis H2000G - Rear View 13

Tables

Table 1. Intel® Xeon® processor Scalable family - Feature Comparison Table 2
Table 2. Intel® Xeon® processor Scalable family w/ Integrated Intel® Omni-Path Fabric – Features Table 3
Table 3. Product Family Reference Collaterals 4
Table 4. Intel® S2600BP Server Board Family Feature Set 6
Table 5. Intel® Compute Module HNS2600BP Family Feature Set 9
Table 6. Bridge Board Features and Compute Module / Chassis Compatibility 11
Table 7. 2U Intel® Server Chassis H2000G Product Family Feature Set and Compute Module Compatibility 12
Table 8. Server Board Product Family Summary 14
Table 9. Server Chassis Product Family Summary 14
Table 10. Intel® Compute Module HNS2600BP Product Family Summary 15
Table 11. List of Intel® RAID Accessories Options 40

1 Intel® Server Family Overview

This document provides a catalogue of available Intel server products, accessories, and spares associated with the following Intel server product family.



The density-optimized Intel® Server S2600BP product family is offered as building block options. The product family consists of the following:

Server Building Blocks:

- **Intel® Server Board S2600BP Family** – A family of server board only products (Server building block option and spare FRU)
- **Intel® Compute Module HNS2600BP product family** – A family of density optimized 1U compute modules integrated with an Intel® Server Board S2600BP
- **Intel® Server Chassis H2000G product family** – A 2U multi-node rack mount server chassis designed to support Intel compute modules

Important Note: The Intel® Server S2600BP product family is currently in its final pre-production development and validation stages. All Intel Product Codes (iPC) listed in this document refer to production level hardware which will be available to order at a future date. Please contact your local Intel representative for the date on which production hardware can be ordered.

The Intel® Server S2600BP product family has support for the Intel® Xeon® processor Scalable family:

- Intel® Xeon® Bronze XXXX processor
- Intel® Xeon® Silver XXXX processor
- Intel® Xeon® Gold XXXX processor
- Intel® Xeon® Platinum XXXX processor

XXXX = Intel defined processor SKUs**:**

NOTE: Previous-generation Intel® Xeon® processors and previous-generation CPU heat sinks are not compatible on server boards described in this document.

Table 1. Intel® Xeon® processor Scalable family - Feature Comparison Table

Feature	81xx Platinum	61xx Gold	51xx Gold	41xx Silver	31xx Bronze
# of Intel® UPI Links	3	3	2	2	2
UPI Speed	10.4 GT/s	10.4 GT/s	10.4 GT/s	9.6 GT/s	9.6 GT/s
Supported Topologies	2S-2UPI 2S-3UPI 4S-2UPI 4S-3UPI 8S- 3UPI	2S-2UPI 2S-3UPI 4S-2UPI 4S-3UPI	2S-2UPI 4S-2UPI	2S-2UPI	2S-2UPI
Node Controller Support	Yes	Yes	No	No	No
# of Memory Channels	6	6	6	6	6
Max DDR4 Speed	2666	2666	2400	2400	2133
Memory Capacity	768GB 1.5TB (Select SKUs)	768GB 1.5TB (Select SKUs)	768GB 1.5TB (Select SKUs)	768 GB	768 GB
RAS Capability	Advanced	Advanced	Advanced	Standard	Standard
Intel® Turbo Boost	Yes	Yes	Yes	Yes	No
Intel® Hyper-Threading	Yes	Yes	Yes	Yes	No
Intel® AVX-512 ISA Support	Yes	Yes	Yes	Yes	Yes
Intel® AVX-512 - # of 512b FMA Units	2	2	1	1	1
# of PCIe* Lanes	48	48	48	48	48

Table 2. Intel® Xeon® processor Scalable family w/ Integrated Intel® Omni-Path Fabric – Features Table

Feature	81xxF Platinum	61xxF Gold
# of Cores	≥ 24	< 24
# of Omni-Path Fabric Ports	1	1
# of Intel® UPI Links	2	2
UPI Speed	10.4 GT/s	10.4 GT/s
Supported Topologies	2S-2UPI	2S-2UPI
Node Controller Support	No	No
# of Memory Channels	6	6
Max DDR4 Speed	2666	2666
Memory Capacity	768GB 1.5TB (Select SKUs)	768GB 1.5TB (Select SKUs)
RAS Capability	Standard	Standard
Intel® Turbo Boost	Yes	Yes
Intel® Hyper-Threading	Yes	Yes
Intel® AVX-512 ISA Support	Yes	Yes
Intel® AVX-512 - # of 512b FMA Units	2	2
# of PCIe* Lanes	48	48

The Intel® S2600BP product family supports the following processor Thermal Design Power (TDP) limits:

- Up to 165W – Intel® Server Board only (OEM Option) and Intel® Compute Module installed in non-Intel Chassis (OEM Option)
- Up to 165W – Intel® Compute Module when installed into the Intel® Server Chassis H2204XXLRE
- Up to 140W – Intel® Compute Module integrated within all other supported Intel server chassis options

The Intel® S2600BP product family supports the following memory:

- DDR4, LRDIMM/RDIMM, at rates of up to 2666[1] MT/s
- DDR4 standard voltage of 1.2V

NOTES:
[1] The maximum memory speed supported depends on the processor used. See Table 1 and Table 2

Additional Information and Software

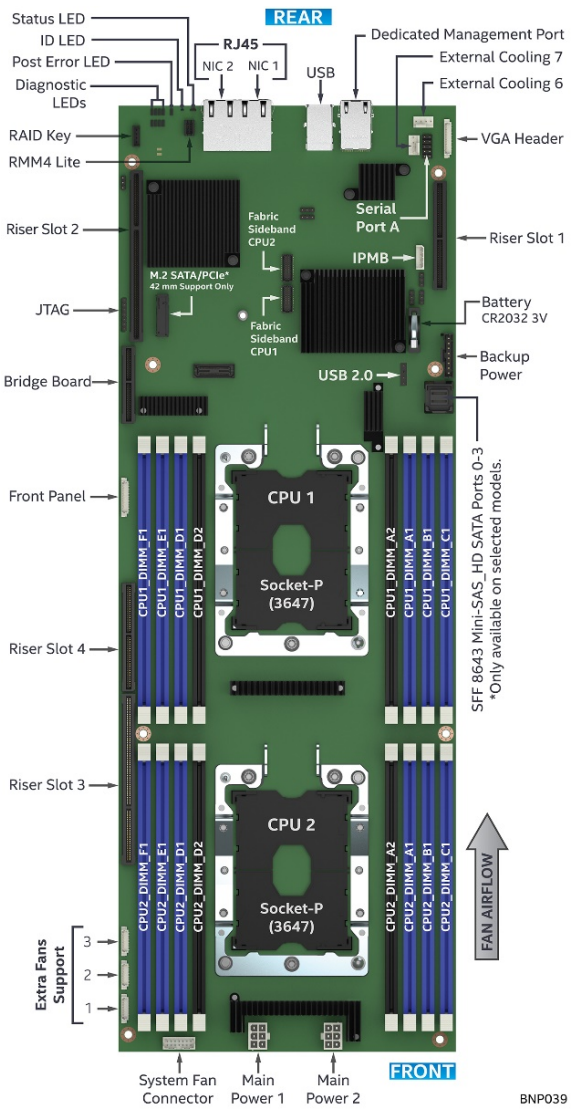
For additional information about this family of products or any of their supported accessories, refer to the following resources available at http://www.intel.com/support

Table 3. Product Family Reference Collaterals

For this information or software	Use this Document or Software
For in-depth technical information about this product family	• Intel® Server Board S2600BP and Intel® Compute Module HNS2600BP Technical Product Specification • Intel® Server Board S2600BP and Intel® Compute Module HNS2600BP Configuration guide • Intel® Server Chassis H2000G Technical Product Specification • Intel® Remote Management Module 4 Technical Product Specification • Intel® Server System BIOS Setup Utility Guide • Intel® Server Platform Firmware Specification Update • Product Safety and Regulatory Compliance https://www.intel.com/content/www/us/en/support/server-products.html
For system integration instructions and service guidance	• Intel® Server Board S2600BP and Intel® Compute Module HNS2600BP Service Guide https://www.intel.com/content/www/us/en/support/server-products/server-boards/000024318.htm
For server configuration guidance and compatibility	Intel® Server Configurator Tool http://serverconfigurator.intel.com/
For system power budget guidance	Intel® Server Board S2600BP Product Family Power Budget Tool
For system firmware updates, onboard device drivers, and software to manage your Intel® Server System.	https://downloadcenter.intel.com/product/93091/
For a complete list of supported processors, memory, add-in cards, and peripherals:	https://www.intel.com/content/www/us/en/support/server-products/server-boards/dual-socket-server-boards/intel-server-board-s2600bp-family.html
Product Warranty Information	http://www.intel.com/content/www/us/en/support/services/000005886.html

1.1 Intel® Server Board S2600BP Product Family

S2600BPB/S2600BPQ



S2600BPS

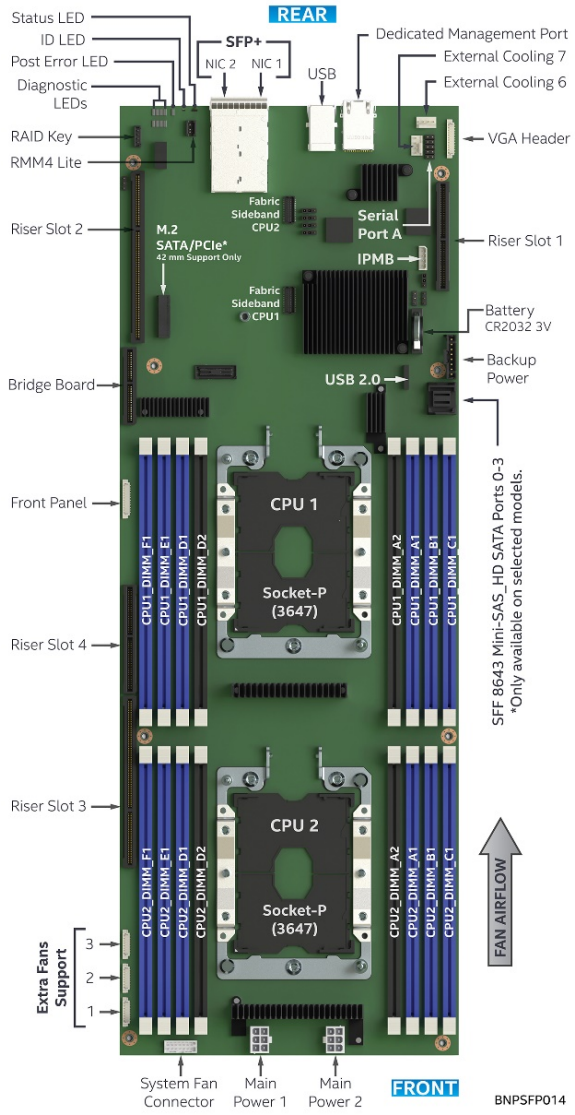


Figure 1. Intel® Server Board S2600BP On-board Features

Note: The illustrations above provide an overview of available server board features. Some features may not be present on all available server board options. See Table 4 for a complete list of features supported on a given server board option.

The density-optimized Intel® Server Board S2600BP family consists of three server board options with features defined as following

Table 4. Intel® S2600BP Server Board Family Feature Set

Server Board Features	Detail		
Server Board SKU	**S2600BPB**	**S2600BPS**	**S2600BPQ**
Processor	• Up to two (2) Intel® Xeon® processor Scalable family • Support for Intel® Xeon® processor Scalable family with Intel® Omni-path Integrated Fabric Connectors – One 100Gb/s port per processor		
Processor UPI Links	2		
Maximum Processor TDP	• Up to 165W – Intel® Server Board only (OEM Option) and Intel® Compute Module installed in non-Intel Chassis (OEM Option) • Up to 165W – Intel® Compute Module when installed into the Intel® Server Chassis H2204XXLRE • Up to 140W – Intel® Compute Module integrated within all other supported Intel server chassis options		
Processor Socket	Dual Socket-P 3647		
Chipset	Intel® C621 chipset	Intel® C622 chipset	Intel® C628 chipset
Intel® QuickAssist Technology (QAT)	No	No	Yes
Memory	16 DIMM Slots (8 per CPU) – DDR4 RDIMM/LRDIMM, Up to 266** MT/s, 1.2V ** The maximum memory speed supported is dependent on the installed processor SKU		
SATA Support	Four (4) SATA 6Gbps ports via Mini-SAS HD (SFF-8643) connector (from PCH)		No
M.2	One (1) 42mm M.2 SATA/PCIe* x4		
Networking	Dual 10GBase-T ports	Dual 10GbE SFP+ ports support	Dual 10GBase-T ports
USB	Dual stacked rear panel USB 3.0 ports		
Expansion Options			
Bridge Board Slot	See supported Bridge Board Options under Compute Module Specs		
Riser Slot 1 (CPU1)	x16 PCIe* 3.0 lanes	x16 PCIe* 3.0 lanes	No PCIe*, Power Only
Riser Slot 2 (CPU1)	x24 PCIe* 3.0 lanes	x24 PCIe* 3.0 lanes	x24 PCIe* 3.0 lanes
Riser Slot 3 (CPU2)	x24 PCIe* 3.0 lanes	x24 PCIe* 3.0 lanes	x24 PCIe* 3.0 lanes
Riser Slot 4 (CPU2)	x16 PCIe* 3.0 lanes	x16 PCIe* 3.0 lanes	x16 PCIe* 3.0 lanes

Server Board Features	Detail		
Server Board SKU	**S2600BPB**	**S2600BPS**	**S2600BPQ**
Server Management	• Integrated Baseboard Management Controller, IPMI 2.0 compliant • One Dedicated RJ45 Management Port • One 2x4 pin header for optional Intel® Remote Management Module 4 Lite (Intel® RMM4 Lite2) with support for Remote KVM • On-Board LEDs: System Status, System ID, POST Code Diagnostic, BMC Error Code		
BIOS	uEFI based BIOS		
Onboard Connectors and Headers	**Detail**		
Video	One 1x12 pin video header, 16MB of DDR4 video memory		
IPMB	One 1x4 pin IPMB header		
USB	One USB 2.0 connector		
Serial	One DH-10 Serial Port A connector		
Control Panel	One 1x12 pin control panel header		
System Fan Support	One managed 2x7 pin header for system fan module (Intel Chassis) Three managed 1x8 pin System Fan connectors Two 1x4 pin System Fan connectors		
Power	One 1x8 pin Backup Power connector Two 2x3 Main Power connectors		

Note: All riser slots on the server board are designed for riser card support ONLY. Plugging a PCIe* card directly into a riser slot may cause permanent server board and/or PCIe* card damage.

1.2 Intel® Compute Module HNS2600BP Product Family

The Intel® Compute Module HNS2600BP product family is a purpose build 1U density optimized compute module designed to operate as a single system node within a multi-node chassis. This Intel compute module family is compatible with select SKUs within the Intel® Server Chassis H2000G product family.

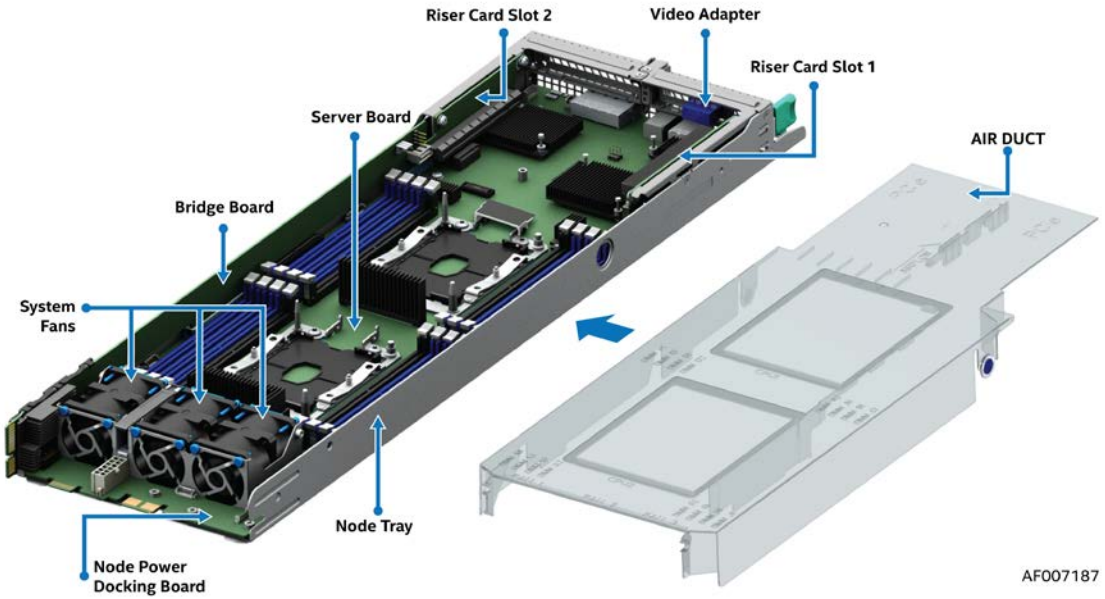
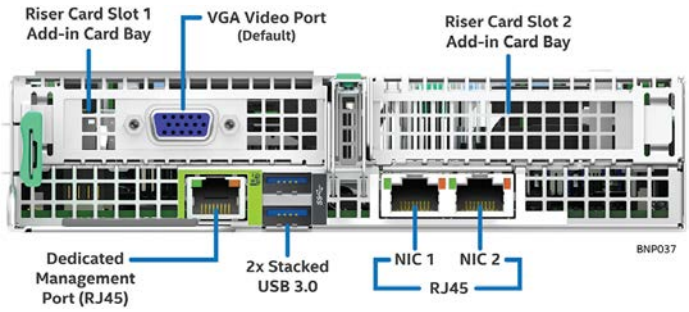
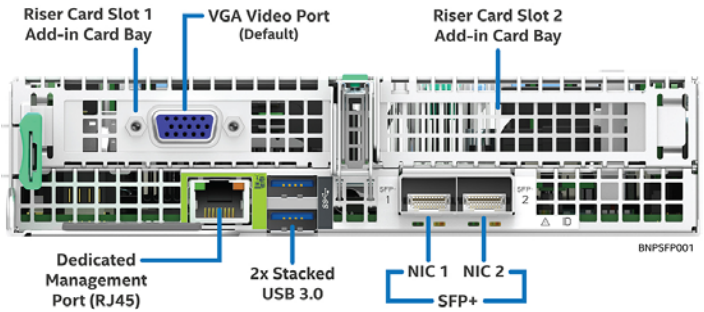


Figure 2. Intel® Compute Module HNS2600BP Feature Set Identification



HNS2600BPB, HNS2600BPQ



HNS2600BPS

Figure 3. Intel® Compute Module HNS2600BP Product Family – Rear Connectors

The Intel® Compute Module HNS2600BP product family includes six compute module options. Table 5 identifies the feature set associated with each.

Table 5. Intel® Compute Module HNS2600BP Family Feature Set

Compute Module Features	Detail		
Compute Module SKUs	**HNS2600BPB** **HNS2600BPB24**	**HNS2600BPS** **HNS2600BPS24**	**HNS2600BPQ** **HNS2600BPQ24**
Processor Support	• Up to two (2) Intel® Xeon® processor Scalable family • Support for Intel® Xeon® processor Scalable family with Intel® Omni-path Integrated Fabric Connectors – One 100Gb/s port per processor		
Maximum Processor TDP	• Up to 165W – Intel® Server Board only (OEM Option) and Intel® Compute Module installed in non-Intel Chassis (OEM Option) • Up to 165W – Intel® Compute Module when installed into the Intel® Server Chassis H2204XXLRE • Up to 140W – Intel® Compute Module integrated within all other supported Intel server chassis options		
Chipset	Intel® C621 chipset	Intel® C622 chipset	Intel® C628 chipset
Memory	16 DIMM Slots (8 per CPU) – DDR4 RDIMM/LRDIMM, Up to 266** MT/s, 1.2V ** The maximum memory speed supported is dependent on the installed processor SKU		
Storage Support	Dependent on optional Bridge Board accessory. See supported Bridge Board options		
M.2	One (1) on-board 42mm M.2 SATA/PCIe* x4 + One (1) Riser 2 80mm M.2 PCIe* x4		
Networking	Dual 10GBase-T ports	Dual 10GbE SFP+ ports support	Dual 10GBase-T ports
Intel® Quick Assist Technology (QAT)	No	No	Yes
USB	Dual stacked rear panel USB 3.0 ports		
Video	DB-15 Rear Panel VGA Video connector on Riser 2, 16MB of DDR4 video memory		
Expansion Options			
Bridge Board Slot	See supported Bridge Board Options		
Riser Slot 1 (CPU1)	**Default:** Video Adapter 1U PCIe* x16 riser card for supporting in-board low-profile PCIe card **Optional:** Support for Intel® Omni-path fabric through carrier card	**Default:** Video Adapter **Optional:** Support for Intel® Omni-path fabric through carrier card option only	**Default:** Video Adapter **Optional:** Support for Intel® Omni-path fabric through carrier card option only

Compute Module Features	Detail		
Compute Module SKUs	**HNS2600BPB** **HNS2600BPB24**	**HNS2600BPS** **HNS2600BPS24**	**HNS2600BPQ** **HNS2600BPQ24**
Riser Slot 2 (CPU1)	1U PCIe* x16 riser card for supporting in-board low-profile PCIe card (on slot 2) and one PCIe 80mm M.2 device. **Optional:** Support for Intel® Omni-path fabric through carrier card	1U PCIe* x16 riser card for supporting in-board low-profile PCIe card (on slot 2) and one PCIe 80mm M.2 device. **Optional:** Support for Intel® Omni-path fabric through carrier card	1U PCIe* x16 riser card for supporting in-board low-profile PCIe card (on slot 2) and one PCIe 80mm M.2 device. **Optional:** Support for Intel® Omni-path fabric through carrier card
Riser Slot 3	Not Available with Bridge Board installed	Not Available with Bridge Board installed	Not Available with Bridge Board installed
Riser Slot 4	Not Available with Bridge Board installed	Not Available with Bridge Board installed	Not Available with Bridge Board installed
Server Management	Integrated Baseboard Management Controller, IPMI 2.0 compliant One Dedicated RJ45 Management Port One 2x4 pin header for optional Intel® Remote Management Module 4 Lite (Intel® RMM4 Lite2) with support for Remote KVM On-Board LEDs: System Status, System ID, POST Code Diagnostic, BMC Error Code		
Fans	Three 40x56mm dual rotor system fans		

The following table identifies all available Bridge Board options supported by the Intel® Compute Module HNS2600BP product family.

Note: Beyond the feature set associated with each bridge board option, bridge board selection must also be based on the specific Intel compute module and Intel chassis into which it will be installed.

Table 6. Bridge Board Features and Compute Module / Chassis Compatibility

Bridge Board Product Code	Description	SATA / SAS	RAID Support	RAID 5	Compatible Intel Products
AHWBPBGB	4-Port Bridge Board	6G SATA PCH	ESRT2 SW RAID 0/1/10	RAID 5 with optional key (RKSATA4R5)	Supported Intel Compute Modules: HNS2600BPB HNS2600BPS HNS2600BPQ Supported Intel Chassis: H2312XXLR3
AHWBP12GBGBIT	4-Port Bridge Boards	6G SATA 12G SAS	JBOD Mode		
AHWBP12GBGB	4-Port iMR Bridge Board w/ LSI 3008 IOC	6G SATA 12G SAS	RAID 0/1/10	No	
AHWBP12GBGBR5	4-Port iMR Bridge Board w/ LSI 3008 IOC	6G SATA 12G SAS	RAID 0/1/10	RAID 5	
AHWBPBGB24	6-Port IT Bridge Board w/ LSI 3008 IOC	6G SATA 12G SAS NVMe	JBOD Mode		Supported Intel Compute Modules: HNS2600BPB24 HNS2600BPS24 HNS2600BPQ24 Supported Intel Chassis: H2224XXLR3
AHWBPBGB24R	6-Port IT iMR Bridge Board w/ LSI 3408 IOC	6G SATA 12G SAS NVMe	RAID 0/1/10	RAID 5 with optional key (AXXRPFKHY5)	
AHWBPBGB24P	6-Port Pass-Through Bridge Board	Pass-Through	RAID support with optional add-in card	RAID 5 with optional add-in card	

The Intel® Compute Module HNS2600BP product family is compatible with the following Intel server chassis.

- Intel® Server Chassis H2000G Product Family. See Table 7 for supported chassis models

Note: The Intel® Server Chassis H2000G product family consists of several chassis SKUs compatible with different Intel server compute module families. Only the chassis SKUs identified in the following table are compatible with the Intel® Compute Module HNS2600BP product family.

Table 7. 2U Intel® Server Chassis H2000G Product Family Feature Set and Compute Module Compatibility

Chassis Feature / Chassis SKUs	H2312XXLR3	H2224XXLR3	H2204XXLRE
Intel® Compute Module Compatibility	HNS2600BPB HNS2600BPS HNS2600BPQ	HNS2600BPB24 HNS2600BPS24 HNS2600BPQ24	HNS2600BPB HNS2600BPS HNS2600BPQ
Number of Compute Modules	Up to 4	Up to 4	Up to 4
Chassis Dimensions	3.46" x 17.24" x 30.35" 87.9 x 438 x 771mm	3.46 x 17.24" x 28.86" 87.9 x 438 x 733mm 86.9 x 438 x 733mm	3.46" x 17.24" x 30.35" 87.9 x 438 x 771mm
Package Dimensions	983 x 577 x 260mm 983 x 577 x 260mm 983 x 577 x 260mm		
Chassis Weight	21.5kg	20.6kg	20.6Kg
Package Weight	29.5kg	28.9kg	28.9Kg
Maximum Supported Processor TDP	140 Watts	140 Watts	165 Watts
Power Supply	Two (2) x 2130W AC Common Redundant Power Supply (CRPS)		
Power Supply Efficiency Rating	80 Plus Platinum		
Power Configuration	1+0 – No power redundancy 1+1 – Redundant power 2+0 – Combined power, no redundancy		
Fans	Three (3) system managed fans per module One (1) fan per power supply		
2.5" PCIe* NVMe SSD Support	None	8 total, max 2 per node	None
Hot Swap Drive Bays	• Twelve (12) x 3.5" bays • 6Gbps SATA / 12Gbps SAS • With optional Bridge Board	• Twenty-four (24) x 2.5" bays • 6Gbps SATA / 12Gbps SAS / PCIe* NVMe • With optional Bridge Board	• Four (4) x 2.5" bays • 6Gbps SATA / 12Gbps SAS • With optional Bridge Board

For additional details on chassis features, refer to the *Intel® Server Chassis H2000G Product Family Technical Product Specification.*

Figure 4. Intel® Server Chassis H2312XXLR3

Figure 5. Intel® Server Chassis H2224XXLR3

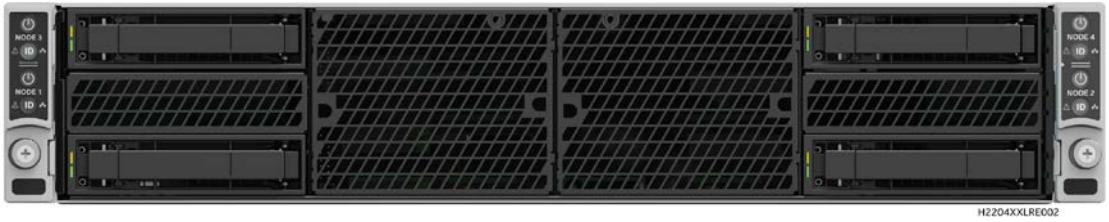


Figure 6. Intel® Server Chassis H2204XXLRE

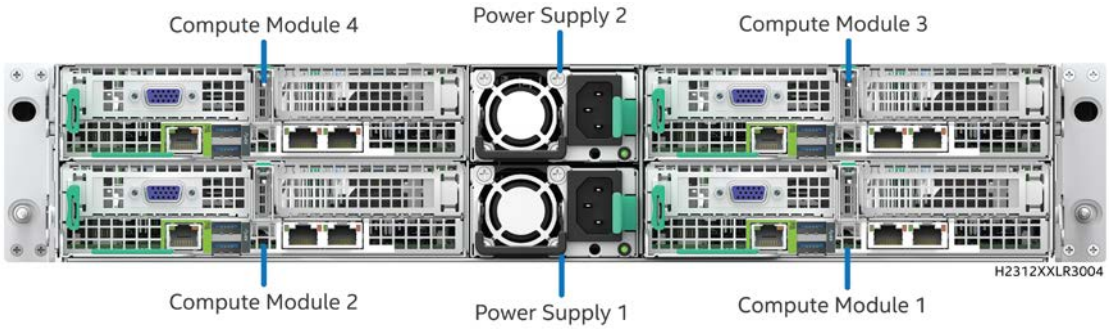


Figure 7. Intel® Server Chassis H2000G - Rear View

1.3 Product Family Summary Chart

The density-optimized Intel® Server S2600BP product family is built around any one of three Intel® Server Board S2600BP product family options: **S2600BPB, S2600BPQ and S2600BPS**. Each column within the following tables identify key features supported in the shipping Intel SKU. Additional order code information and full product descriptions for each option are provided in later sections.

Table 8. Server Board Product Family Summary

Intel® Server Board Only Product Code	# of CPU sockets	# of DIMM Slots	# of Riser Slots	Chipset	Onboard RJ45 LAN ports	Onboard SFP+ LAN ports	# of SATA ports (6 Gb)	SATA SW RAID Support
BBS2600BPB	2	16	4	Intel® C621	Dual 10GBase-T ports	NA	4	yes
BBS2600BPQ	2	16	4	Intel® C628	Dual 10GBase-T ports	NA	NA	NA
BBS2600BPS	2	16	4	Intel® C622	NA	Dual 10GbE SFP+ ports	4	yes

Table 9. Server Chassis Product Family Summary

Intel® Chassis Only (KDK) Product Code	Chassis Form Factor	# of Nodes	Max Processor TDP	Drive Form Factor	# of Hot Swap Drives	NVMe SSD Support	Supported Intel® Compute Modules	Power Supply Modules	Rails	SAS RAID
H2312XXLR3	2U	4	140W	2.5” / 3.5”	12 Total 3 per node	No	HNS2600BPB HNS2600BPS HNS2600BPQ	2 x 2130W AC	yes	Opt
H2224XXLR3	2U	4	140W	2.5”	24 Total 6 per node	Yes 2 per node	HNS2600BPB24 HNS2600BPS24 HNS2600BPQ24	2 x 2130W AC	yes	Opt
H2204XXLRE	2U	4	165W	2.5” Only [1]	4	No	HNS2600BPB HNS2600BPS HNS2600BPQ	2 x 2130W AC	yes	Opt

[**1**] - The H2204XXLRE Chassis will include 4x3.5” drive carriers. However, to maintain the thermal requirements to support 165W TDP processors, only 2.5” HDD or SSD drives will be supported.

Table 10. Intel® Compute Module HNS2600BP Product Family Summary

Intel® Compute Module Product Code	Form Factor	Server Board	QAT	External VGA	PCIe* Riser Card (Slot 1)	PCIe* Riser Card (Slot 2)	Bridge Board	Supported Intel Chassis
HNS2600BPB	1U Density Optimized	BBS2600BPB	NA	yes	yes	yes	Required option	**H2312XXLR3** **H2204XXLRE**
HNS2600BPB24	1U Density Optimized	BBS2600BPB	NA	yes	yes	yes	Required option	**H2224XXLR3**
HNS2600BPS	1U Density Optimized	BBS2600BPS	NA	yes	Opt[1]	yes	Required option	**H2312XXLR3** **H2204XXLRE**
HNS2600BPS24	1U Density Optimized	BBS2600BPS	NA	yes	Opt[1]	yes	Required option	**H2224XXLR3**
HNS2600BPQ	1U Density Optimized	BBS2600BPQ	yes	yes	Opt[1]	yes	Required option	**H2312XXLR3** **H2204XXLRE**
HNS2600BPQ24	1U Density Optimized	BBS2600BPQ	yes	yes	Opt[1]	yes	Required option	**H2224XXLR3**

Terms used in the tables:

NA – Not Applicable

Opt – Accessory option sold separately

Yes – Option included

[1] - The intended use for Riser Slot #1 in these compute modules is to support the following options only:

- Support for optional Intel® Omni-path fabric through carrier card. Riser card #1 accessory **iPC - AHW1URISER1** required
- External VGA video connector bracket (Standard Default). No riser card necessary
- A PCIe* Add-in card in Riser #1 is not supported in these compute modules

Refer to the *Intel® Server Board S2600BP and Compute Module HNS2600BP Technical Product Specification* for additional information

2 Server Building Block Configuration

Server building blocks are offered to provide the option of picking and choosing from available Intel server components to create a custom system configuration. Each building block component and optional accessory is purchased separately and assembled by a system integrator. At a minimum, building up a base functional server system using building blocks will require the following:

- Intel® Compute Module HNS2600BP Product Family
- Supported 2U Intel Server Chassis – Intel® Server Chassis H2000G product family (Select SKUs only)
- Bridge Board Option
- Processor
- Memory
- Storage Drives

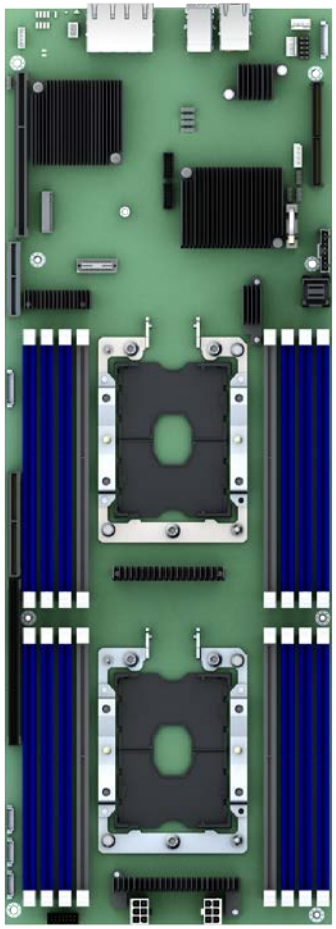
Optional Intel accessories that can be added include the following:

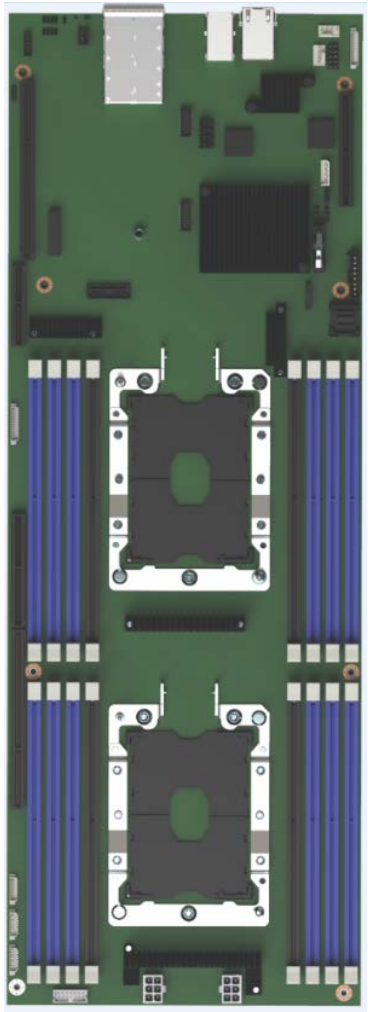
- Riser card #1 option
- Intel® Omni-path Fabric Accessory Kit for use with Intel® Xeon® processor Scalable family SKUs supporting an integrated fabric interface connector
- Intel® SAS / SAS RAID PCIe* add-in card – add-in card when Intel bridge board accessory AHWBPBGB24P is used
- Intel® Remote Management Module Lite key (RMM4 Lite) – to add advanced server management features
- NVMe VROC or ESRT2 SATA RAID 5 Key options (Configuration specific)

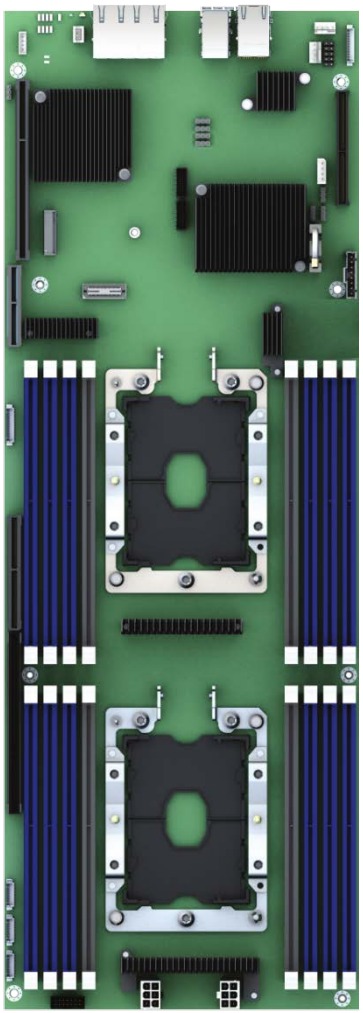
See Chapter 3 for available options

2.1 Intel® Server Board S2600BP Product Family Options

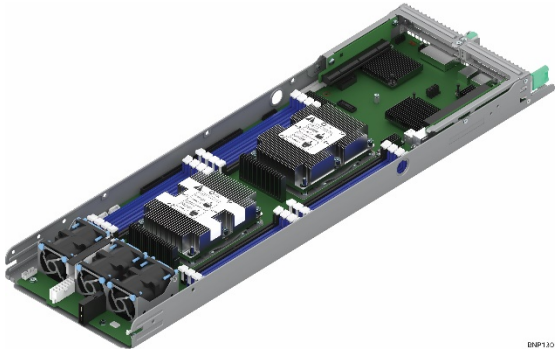
NOTE: All images in the following sections are for illustration purposes only.

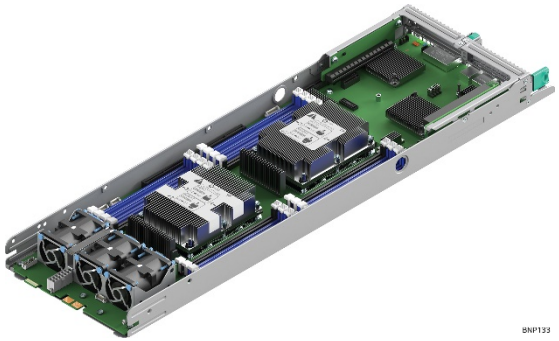
Intel Product Code (iPC)	Order Information	Product Description	Product Type
iPC – **BBS2600BPB** 	MM# - 948899 UPC - 00735858323567 EAN - 5032037090698 MOQ - 10 Packaged Gross Weight 16.75 kg (Bulk package) Un-packaged Net Weight 1.25 kg (Single board)	**Intel® Server Board S2600BPB** (2) Processor sockets – Intel® Xeon® processor Scalable family (16) DDR4 Memory slots supporting (2) PCIe 3.0 x24 capable slots (not PCI-SIG* compatible) (2) PCIe 3.0 x16 capable slots (not PCI-SIG* compatible) (2) Integrated 10GbE **RJ45** ports based on Intel® Ethernet Controller X550 (1) Dedicated 1GbE management port (2) USB 3.0 ports (1) SATA/PCIe* 2242 M.2 SSD connector (42mm support only) (4) SATA 6Gbps ports via Mini-SAS HD (SFF-8643) Support for up to 5 system fans	**Server Board only** • Building block option • Spare FRU

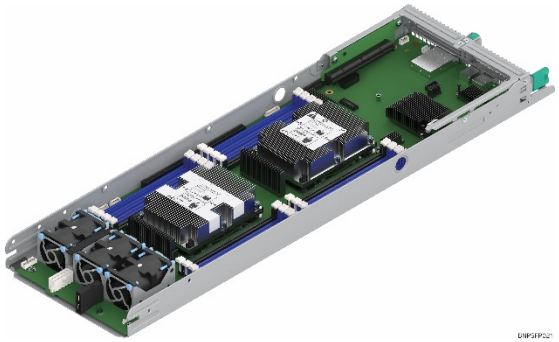
Intel Product Code (iPC)	Order Information	Product Description	Product Type
iPC – **BBS2600BPS** 	MM# - 952609 UPC - 00735858342971 EAN - 5032037104104 MOQ - 10 Packaged Gross Weight 16.75 kg (Bulk package) Un-packaged Net Weight 1.25 kg (Single board)	**Intel® Server Board S2600BPS** (2) Processor sockets – Intel® Xeon® processor Scalable family (16) DDR4 Memory slots (2) PCIe 3.0 x24 capable slots (not PCI-SIG* compatible) (2) PCIe 3.0 x16 capable slots (not PCI-SIG* compatible) (2) Integrated Dual 10GbE **SFP+** ports (1) Dedicated 1GbE management port (2) USB 3.0 ports (1) SATA/PCIe* 2242 M.2 SSD connector (42mm support only) (4) SATA 6Gbps ports via Mini-SAS HD (SFF-8643) Support for up to 5 system fans	**Server Board only** • Building block option • Spare FRU

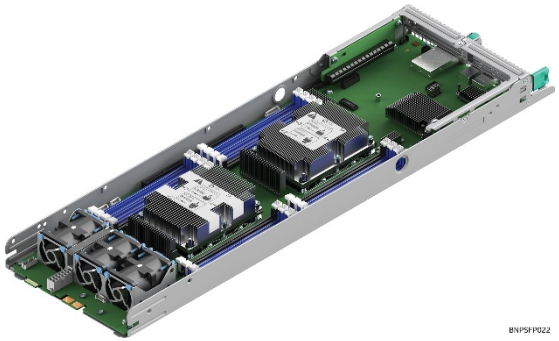
Intel Product Code (iPC)	Order Information	Product Description	Product Type
iPC – **BBS2600BPQ** 	MM# - 948900 UPC - 00735858323574 EAN - 5032037090704 MOQ - 10 Packaged Gross Weight 16.75 kg (Bulk package) Un-packaged Net Weight 1.25 kg (Single board)	**Intel® Server Board S2600BPQ** Support for Intel® QuickAssist® Technology (2) Processor sockets – Intel® Xeon® processor Scalable family (16) DDR4 Memory slots (2) PCIe 3.0 x24 capable slots (not PCI-SIG* compatible) (1) PCIe 3.0 x16 capable slots (not PCI-SIG* compatible) (2) Integrated 10GbE **RJ45** ports based on Intel® Ethernet Controller X550 (1) Dedicated 1GbE management port (2) USB 3.0 ports (1) SATA/PCIe* 2242 M.2 SSD connector (42mm support only) Support for up to 5 system fans	**Server Board only** • Building block option • Spare FRU

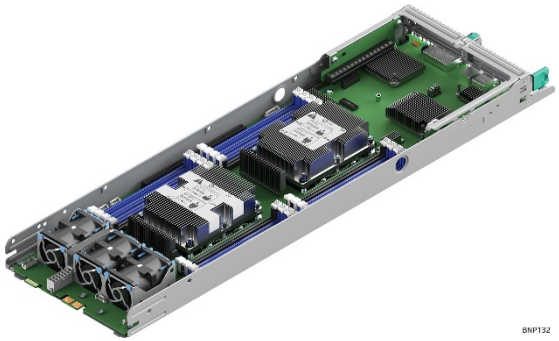
2.2 Intel® Compute Module S2600BP Product Family SKUs

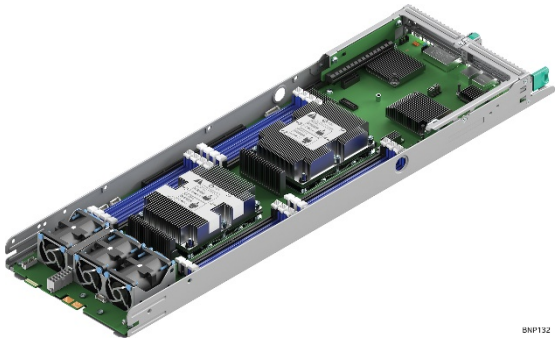
Intel Product Code (iPC)	Order Code Information	Product Type
iPC – **HNS2600BPB** 	MM# - 948924 UPC – 00735858323581 EAN – 5032037090711 MOQ – 1	Compute Module Form Factor – Density Optimized 1U Dimensions : L = 24.7” (627.4mm) W = 7.03” (178..6mm) H = 1.60” (40.81mm) Package Gross Weight = 5.6 Kg Un-packed Net Weight = 4.32 Kg
Product Definition and Configuration Requirements		
The Intel® Compute Module HNS2600BPB includes the following components: (1) 1U node tray (1) Intel® Server Board S2600BPB (1) Power Docking Board FHWBPNPB (3) 40x56mm dual rotor managed fans FXX4056DRFAN2 (1) 1U passive heat sink – CPU #1 – CuAL – FXXHP78X108HS (1) 1U passive heat sink – CPU #2 – AL – FXXEA78X108HS (2) Standard Carrier Clips (1) Air duct (1) External VGA port bracket (1) Slot 1 riser card - AHW1URISER1 (1) Slot 2 riser card w/80mm M.2 SSD slot - AHW1UM2RISER2	**Required Items – Sold Separately:** One or two Intel® Xeon® processor Scalable family Up to Sixteen (16) DDR4 RDIMM/LRDIMM One of the following Intel Bridge Board Options: • AHWBPBGB • AHWBP12GBGB • AHWBP12GBGBIT • AHWBP12GBGBR5	**Optional Intel Accessories – Sold Separately:** NOTE: Compatible with Intel® Server Chassis H2312XXLR3 and H2204XXLRE Intel® SAS RAID Card iPC AXXRMM4LITE2 – Intel® Remote Management Module Lite key. For advanced management features See Chapter 3 for more available accessory options.

Intel Product Code (iPC)	Order Code Information	Product Type
iPC – **HNS2600BPB24** 	MM# - 948903 UPC - 00735858323611 EAN - 5032037090742 MOQ - 1	Compute Module Computer Module Form Factor: 1U Compute Module Dimensions: L=24.62” (625.4 mm.) W=6.98” (177.5 mm.) H=1.60” (40.81 mm.) Package Gross Weight = 5.6 Kg Un-packed Net Weight = 4.32 Kg
Product Definition and Configuration Requirements		
The Intel® Compute Module HNS2600BPB24 includes the following components: (1) 1U node tray (1) Intel® Server Board S2600BPB (1) Power Docking Board FHWBPNPB24 (3) 40x56mm dual rotor managed fans FXX4056DRFAN2 (1) 1U passive heat sink – CPU #1 – CuAL – FXXHP78X108HS (1) 1U passive heat sink – CPU #2 – AL – FXXEA78X108HS (2) Standard Carrier Clips (1) Air duct (1) External VGA port bracket (1) Slot 1 riser card - AHW1URISER1 (1) Slot 2 riser card w/80mm M.2 SSD slot - AHW1UM2RISER2	**Required Items – Sold Separately:** One or two Intel® Xeon® processor Scalable family Up to Sixteen (16) DDR4 RDIMM/LRDIMM One of the following Intel Bridge Board Options: • AHWBPBGB24 • AHWBPBGB24R • AHWBPBGB24P **NOTE:** Intel Bridge Board option (AHWBPBGB24P) requires the installation of an add-in PCIe* RAID card installed into a PCIe* add-in slot on Riser 2.	**Optional Intel Accessories – Sold Separately:** NOTE: Compatible with Intel® Server Chassis H2224XXLR3 only. Intel® SAS RAID Card iPC AXXRMM4LITE2 – Intel® Remote Management Module Lite key. For advanced management features See Chapter 3 for more available accessory options.

Intel Product Code (iPC)	Order Code Information	Product Type
iPC – **HNS2600BPS** 	MM# - 952610 UPC - 00735858342926 EAN - 5032037104050 MOQ – 1	Compute Module Form Factor – Density Optimized 1U Dimensions : L = 24.7” (627.4mm) W = 7.03” (178..6mm) H = 1.60” (40.81mm) Package Gross Weight = 5.6 Kg Un-packed Net Weight = 4.32 Kg
Product Definition and Configuration Requirements		
The Intel® Compute Module HNS2600BPS includes the following components: (1) 1U node tray (1) Intel® Server Board S2600BPS (1) Power Docking Board FHWBPNPB (3) 40x56mm dual rotor managed fans FXX4056DRFAN2 (1) 1U passive heat sink – CPU #1 – CuAL – FXXHP78X108HS (1) 1U passive heat sink – CPU #2 – AL – FXXEA78X108HS (2) Standard Carrier Clips (1) Air duct (1) External VGA port bracket (1) Slot 2 riser card w/80mm M.2 SSD slot - AHW1UM2RISER2	**Required Items – Sold Separately:** One or two Intel® Xeon® processor Scalable family Up to Sixteen (16) DDR4 RDIMM/LRDIMM One of the following Intel Bridge Board Options: • AHWBPBGB • AHWBP12GBGB • AHWBP12GBGBIT • AHWBP12GBGBR5	**Optional Intel Accessories – Sold Separately:** NOTE: Compatible with Intel® Server Chassis H2312XXLR3 and H2204XXLRE Intel® SAS RAID Card iPC AXXRMM4LITE2 – Intel® Remote Management Module Lite key. For advanced management features See Chapter 3 for more available accessory options.

Intel Product Code (iPC)	Order Code Information	Product Type
iPC – **HNS2600BPS24** 	MM# - 952611 UPC - 00735858342933 EAN - 5032037104067 MOQ - 1	Compute Module Computer Module Form Factor: 1U Compute Module Dimensions: L=24.62” (625.4 mm.) W=6.98” (177.5 mm.) H=1.60” (40.81 mm.) Package Gross Weight = 5.6 Kg Un-packed Net Weight = 4.32 Kg
Product Definition and Configuration Requirements		
The Intel® Compute Module HNS2600BPS24 includes the following components: (1) 1U node tray (1) Intel® Server Board S2600BPS (1) Power Docking Board FHWBPNPB24 (3) 40x56mm dual rotor managed fans FXX4056DRFAN2 (1) 1U passive heat sink – CPU #1 – CuAL – FXXHP78X108HS (1) 1U passive heat sink – CPU #2 – AL – FXXEA78X108HS (2) Standard Carrier Clips (1) Air duct (1) External VGA port bracket (1) Riser slot 2 riser card w/80mm M.2 SSD slot - AHW1UM2RISER2	**Required Items – Sold Separately:** One or two Intel® Xeon® processor Scalable family Up to Sixteen (16) DDR4 RDIMM/LRDIMM One of the following Intel Bridge Board Options: • AHWBPBGB24 • AHWBPBGB24R • AHWBPBGB24P **NOTE:** Intel Bridge Board option (AHWBPBGB24P) requires the installation of an add-in PCIe* RAID card installed into a PCIe* add-in slot on Riser 2.	**Optional Intel Accessories – Sold Separately:** NOTE: Compatible with Intel® Server Chassis H2224XXLR3 only. Intel® SAS RAID Card iPC AXXRMM4LITE2 – Intel® Remote Management Module Lite key. For advanced management features See Chapter 3 for more available accessory options.

Intel Product Code (iPC)	Order Code Information	Product Type
iPC – **HNS2600BPQ** 	MM# - 948901 UPC - 00735858342902 EAN - 5032037104036 MOQ – 1	Compute Module Form Factor – Density Optimized 1U Dimensions : L = 24.7” (627.4mm) W = 7.03” (178..6mm) H = 1.60” (40.81mm) Package Gross Weight = 5.6 Kg Un-packed Net Weight = 4.32 Kg
Product Definition and Configuration Requirements		
The Intel® Compute Module HNS2600BPQ includes the following components: (1) 1U node tray (1) Intel® Server Board S2600BPQ (1) Power Docking Board FHWBPNPB (3) 40x56mm dual rotor managed fans FXX4056DRFAN2 (1) 1U passive heat sink – CPU #1 – CuAL – FXXHP78X108HS (1) 1U passive heat sink – CPU #2 – AL – FXXEA78X108HS (2) Standard Carrier Clips (1) Air duct (1) External VGA port bracket (1) Riser slot 2 riser card w/80mm M.2 SSD slot - AHW1UM2RISER2 Support for Intel® QuickAssist® Technology (QAT)	**Required Items – Sold Separately:** One or two Intel® Xeon® processor Scalable family Up to Sixteen (16) DDR4 RDIMM/LRDIMM One of the following Intel Bridge Board Options: • AHWBPBGB • AHWBP12GBGB • AHWBP12GBGBIT • AHWBP12GBGBR5	**Optional Intel Accessories – Sold Separately:** NOTE: Compatible with Intel® Server Chassis H2312XXLR3 and H2204XXLRE Intel® SAS RAID Card iPC AXXRMM4LITE2 – Intel® Remote Management Module Lite key. For advanced management features Riser Card – Slot 1 See Chapter 3 for more available accessory options.

Intel Product Code (iPC)	Order Code Information	Product Type
iPC – **HNS2600BPQ24** 	MM# - 948904 UPC - 00735858342919 EAN - 5032037104043 MOQ - 1	Compute Module Computer Module Form Factor: 1U Compute Module Dimensions: L=24.62” (625.4 mm.) W=6.98” (177.5 mm.) H=1.60” (40.81 mm.) Package Gross Weight = 5.6 Kg Un-packed Net Weight = 4.32 Kg
Product Definition and Configuration Requirements		
The Intel® Compute Module HNS2600BPQ24 includes the following components: (1) 1U node tray (1) Intel® Server Board S2600BPQ (1) Power Docking Board FHWBPNPB24 (3) 40x56mm dual rotor managed fans FXX4056DRFAN2 (1) 1U passive heat sink – CPU #1 – CuAL – FXXHP78X108HS (1) 1U passive heat sink – CPU #2 – AL – FXXEA78X108HS (2) Standard Carrier Clips (1) Air duct (1) External VGA port bracket (1) Riser slot 2 riser card w/80mm M.2 SSD slot - AHW1UM2RISER2 Support for Intel® QuickAssist® Technology (QAT)	**Required Items – Sold Separately:** One or two Intel® Xeon® processor Scalable family Up to Sixteen (16) DDR4 RDIMM/LRDIMM One of the following Intel Bridge Board Options: • AHWBPBGB24 • AHWBPBGB24R • AHWBPBGB24P **NOTE:** Intel Bridge Board option (AHWBPBGB24P) requires the installation of an add-in PCIe* RAID card installed into a PCIe* add-in slot on Riser 2.	**Optional Intel Accessories – Sold Separately:** NOTE: Compatible with Intel® Server Chassis H2224XXLR3 only. Intel® SAS RAID Card iPC AXXRMM4LITE2 – Intel® Remote Management Module Lite key. For advanced management features See Chapter 3 for more available accessory options.

2.3 Intel® Server Chassis H2000G Product Family SKUs

The product tables found in this section provides order code information and detailed descriptions for each supported Intel® Server Chassis option. The lower sections of each table identify:

- The ship along components of the specified chassis product code – (product BOM)
- **Required Items** – Hardware required to be installed to the base system to achieve basic system functionality
- **Optional Accessories** – Some of the available accessories which can be installed to enhance the basic feature set of the server board / compute module. Additional accessories can be found in Chapter 3

NOTES:

- Each **required item** and **optional accessory** is sold separately from the specified Intel server chassis
- Items identified as **iPC** (Intel Product Code), are an orderable accessory option or spare FRU
- In an effort to provide the complete product bill of materials, the ship along components list in each product table will include items identified by description and by **iPN** (Intel Part Number). The iPN information is provided for reference only. These components are **not** orderable as a spare or accessory.

Intel Product Code (iPC): **H2312XXLR3**

12 x 3.5" Storage front mount drives

Order Code Information:

MM# - 954487

UPC - 00735858341912

EAN - 5032037103206

MOQ - 1

Product Type: **Chassis Only**

Chassis Form Factor: **2U rack mount**

Chassis dimensions:

L=30.35" (771 mm)

W=17.24" (438 mm)

H=3.42" (86.9 mm.

Packaged Gross Weight: **29.5 Kgs, 65.03 Lbs.**

Un-packaged Net Weight: **21.5 Kgs, 47.39 Lbs.**

Outer Box Dimensions: **L=** 983mm, **W=** 260mm, **H=** 577mm

Product Definition and Configuration Requirements

Intel product code **H2312XXLR3** includes the following components:

(1) Front Control Panels - iPC **FH2000FPANEL2**

(1) Power Distribution Board - iPC **FXXCRPSPDB2**

(2) 2130W 80 Plus Platinum PSUs – iPC **FXX2130PCRPS**

(1) 12 x 3.5" Hot-swap drive bay, includes:

- (12) Tool less drive carriers, iPC - **FXX25HSCAR3**
- (1) 12x3.5" Hot swap backplane, iPC- **FHW12X35HS12G**

(4) - Compute Module Bay Fillers

(1) - Basic rack rail mount kit (**AXXELVRAIL**)

NOTE: The rail kit only supports specific rack type with 3/8" square and 7.1mm round holes.

Required Items – Sold Separately:

- Up to 4 - Intel® Compute Module HNS2600BP product family options:
  - HNS2600BPB
  - HNS2600BPS
  - HNS2600BPQ
- Intel Bridge Board Options:
  - AHWBPBGB
  - AHWBP12GBGB
  - AHWBP12GBGBR5
- Power cord(s) – See Chapter 4
- Intel® Xeon® processor Scalable family
- Memory DDR4 RDIMM/LRDIMM
- Storage Drives

Optional Intel Accessories – Sold Separately:

- Slot 1 Riser Card - x16 PCIe* 3.0 – iPC **AHW1URISER1**
- Intel® SAS RAID Card
- Intel® Remote Management Module Lite key. For advanced management features – iPC **AXXRMM4LITE2**
- 2U+ Premium quality rails **-** iPC – **AXXFULLRAIL**

See Chapter 3 for more available accessory options.

Intel Product Code (iPC): **H2224XXLR3**

24 x 2.5" Storage front mount drives

Order Code Information:

MM# - 948907

UPC - 00735858323642

EAN - 5032037090773

MOQ - 1

Product Type: **Chassis Only**

Chassis Form Factor: **2U rack mount**

Chassis dimensions:

L=28.86" (733 mm)

W=17.24" (437.89 mm)

H=3.42" (86.86 mm)

Packaged Gross Weight: **28.9 Kgs, 63.71 Lbs.**

Un-packaged Net Weight: **20.6 Kgs, 45.41 Lbs.**

Outer Box Dimensions: **L=** 983mm, **W=** 260mm, **H=** 577mm.

Product Definition and Configuration Requirements

Intel product code **H22224XXLR3** includes the following components:

(1) Front panel - iPC **FH2000FPANEL2**

(1) Power Distribution Board - iPC **FXXCRPSPDB2**

(1) Power Interposer Board - iPC **FXXCRPSPIB**

(2) 2130W 80 Plus Platinum PSUs – iPC **FXX2130PCRPS**

(1) 24 x 2.5" Hot-swap drive bay, includes:

- (24) Tool less drive carriers, iPC - **FXX25HSCAR3**
- (1) Backplane - iPC **HW24X25HS12G**

(4) - Blank Compute Module Slot Fillers

(1) - Basic rack rail (**AXXELVRAIL**)

NOTE: The rail kit only supports specific rack type with 3/8" square and 7.1mm round holes.

Required Items – Sold Separately:

- Up to 4 - Intel® Compute Module HNS2600BP product family options:
  - HNS2600BPB24
  - HNS2600BPS24
  - HNS2600BPQ24
- Intel Bridge Board Option:
  - AHWBPBGB24
  - AHWBPBGB24R
  - AHWBPBGB24P
- Standard power cord(s) – See Chapter 4
- Intel® Xeon® processor Scalable family
- Memory DDR4 RDIMM/LRDIMM
- Storage Drives

Optional Intel Accessories – Sold Separately:

- Slot 1 Riser Card - x16 PCIe* 3.0 – iPC **AHW1URISER1**
- Intel® SAS RAID Card
- Intel® Remote Management Module Lite key. For advanced management features – iPC **AXXRMM4LITE2**
- Storage Drives
- 2U+ Premium quality rails - iPC – **AXXFULLRAIL**

See Chapter 3 for more available accessory options.

Intel Product Code (iPC): **H2204XXLRE** **4 x 3.5" Storage front mount drives**	**Order Code Information:** **Available as a fully configured system only. Contact your local Intel representative for more information.**	Product Type: **System** Chassis Form Factor: **2U rack mount** Chassis dimensions: **L=28.86" (733 mm.), W=17.24" (438 mm.), H=3.42" (86.9 mm.)** Packaged Gross Weight: **~29.5 Kg, 65.03 Lbs.** Un-packaged Net Weight: **~21.5 Kg, 47.39 Lbs.** Outer Box Dimensions: **L=** 983mm, **W=** 260mm, **H=** 577mm

Product Definition and Configuration Requirements

Intel product code **H2204XXLRE** includes the following components:

(1) 2U H2000G Chassis, includes:

(1) Front panel - iPC **FH2000FPANEL2**

(1) Power Distribution Board - iPC **FXXCRPSPDB2**

(2) 2130W 80 Plus Platinum PSUs – iPC **FXX2130PCRPS**

(1) 12 x 3.5'' Hot-swap HDDs cage, includes:

- (4) Tool less carriers, iPC - **FXX35HSCAR2**
- (1) Backplane, iPC - **FHW04X35HSBP**

(4) - Blank Compute Module Slot Fillers

(1) - Basic rack rail (**AXXELVRAIL**)

NOTE: The rail kit only supports specific rack type with 3/8" square and 7.1mm round holes.

Required Items – Sold Separately:

- Up to 4 - Intel® Compute Module HNS2600BP product family options:
  - HNS2600BPB
  - HNS2600BPS
  - HNS2600BPQ
- Intel Bridge Board Option:
  - AHWBPBGB
  - AHWBP12GBGB
  - AHWBP12GBGBR5
- Standard power cord(s) – See Chapter 4
- Intel® Xeon® processor Scalable family
- Memory DDR4 RDIMM/LRDIMM
- Storage Drives

Optional Intel Accessories – Sold Separately:

- One x16 PCIe* 3.0 slot Riser Card – iPC **AHW1URISER1**
- Intel® SAS RAID Card
- Intel® Remote Management Module Lite key. For advanced management features - iPC **AXXRMM4LITE2**
- Storage Drives
- 2U+ Premium quality rails - iPC – **AXXFULLRAIL**

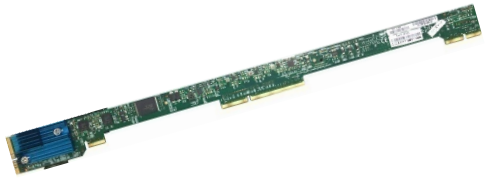
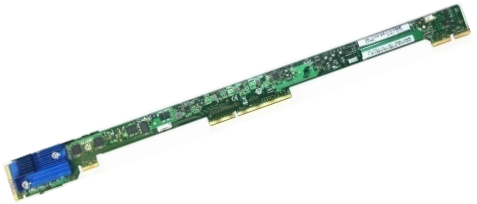
See Chapter 3 for more available accessory options.

3 Accessory Options

The following sections identify available accessory kits supported within the Intel® S2600BP product family.

3.1 Bridge Board Options

Intel Product Code	Order Information	Product Description				Product Type
		Brief Description	SATA / SAS	RAID Support		
iPC – AHWBPBGB	MM# - 948925 UPC - 00735858323673 EAN - 5032037090803 MOQ - 1	4-port SATA Bridge Board	6G SATA	ESRT2 0, 1, 10	ESRT2 5 with Key	• Accessory Kit • Building Block for HNS2600BPB, HNS2600BPQ, HNS2600BPS • Building Block for H2312XXLR3 and H2204XXLRE
iPC - AHWBP12GBGBIT[1]	MM# - 960803 UPC - 00735858347914 EAN - 5032037107198 MOQ - 1	4-port SAS Bridge Board RAID, 3008	6G SATA / 12G SAS	JBOD Mode		• Accessory Kit • Building Block for HNS2600BPB, HNS2600BPQ, HNS2600BPS • Building Block for H2312XXLR3 and H2204XXLRE
iPC - AHWBP12GBGB[1]	MM# - 948926 UPC - 00735858323680 EAN - 5032037090810 MOQ - 1	4-port SAS Bridge Board RAID, 3008	6G SATA / 12G SAS	0, 1, 10	No	• Accessory Kit • Building Block for HNS2600BPB, HNS2600BPQ, HNS2600BPS • Building Block for H2312XXLR3 and H2204XXLRE

Intel Product Code	Order Information	Product Description				Product Type
		Brief Description	SATA / SAS	RAID Support		
iPC - AHWBP12GBGBR5[1]	MM# - 948927 UPC - 00735858323697 EAN - 5032037090827 MOQ - 1	4-port SAS Bridge Board RAID 5, 3008	6G SATA / 12G SAS	0, 1, 10	5	• Accessory Kit • Building Block for HNS2600BPB, HNS2600BPQ, HNS2600BPS • Building Block for H2312XXLR3 and H2204XXLRE
iPC - AHWBPBGB24[1] 	MM# - 948928 UPC - 00735858323703 EAN - 5032037090834 MOQ - 1	6-port SAS Bridge Board, 3008	Intel SATA SSD 12G SAS / NVMe	JBOD Mode		• Accessory Kit • Building Block for HNS2600BPB24, HNS2600BPQ24, HNS2600BPS24 • Building Block for H2224XXLR3
iPC - AHWBPBGB24R[1] 	MM# - 948929 UPC - 00735858323710 EAN - 5032037090841 MOQ - 1	6-port SAS Bridge Board RAID, 3408	6G SATA / 12G SAS NVMe	0, 1, 10	5 with Key	• Accessory Kit • Building Block for HNS2600BPB24, HNS2600BPQ24, HNS2600BPS24 • Building Block for H2224XXLR3

Intel Product Code	Order Information	Product Description				Product Type
		Brief Description	SATA / SAS	RAID Support		
iPC - AHWBPBGB24P	MM# - 948930 UPC - 00735858323727 EAN - 5032037090858 MOQ - 1	6-port Pass-through Bridge Board	N/A	0, 1, 10 with optional RAID add-in card	5 with optional RAID add-in card	• Accessory Kit • Building Block for HNS2600BPB24, HNS2600BPQ24, HNS2600BPS24 • Building Block for H2224XXLR3

TABLE NOTES:

[1] Requires a second processor installed to be functional

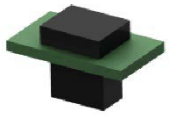
3.2 PCIe* Riser Card Accessory Options

Intel Product Code	Order Information	Product Description	Product Type
iPC - AHW1URISER1 	MM# - 948931 UPC - 00735858323734 EAN - 5032037090865 MOQ - 1	Riser Slot 1 – Riser Card – single slot PCIe* x16 supporting low-profile PCIe add-in card **Note:** The intended use for Riser Slot #1 in compute modules HNS2600BPS/HNS2600BPS24/HNS2600BPQ and HNS2600BPQ24 is to support the following options only: • Support for optional Intel® Omni-path fabric through carrier card • VGA video connector bracket (Standard Default) – no riser card needed • PCIe* Add-in cards cannot be used in these compute module models Refer to *Intel® Server Board and Compute Module Technical Product Specifications* for additional information.	• Accessory Kit
iPC - AHW1UM2RISER2 Top Side Bottom Side M.2 connector 80mm support only	MM# - 948932 UPC - 00735858323741 EAN - 5032037090872 MOQ - 1	Rise Slot 2 – Riser Card – single slot PCIE* x16 supporting low-profile PCIe add-in card and one PCIe 80mm M.2 device on the back side	• Accessory Kit • Spare FRU

3.3 Mount Kits

Intel Product Code	Order Information	Product Description	Product Type
iPC - AXXELVRAIL 	MM# - 920970 UPC - 00735858244367 EAN - 5032037038980 MOQ - 1	**1U / 2U Enhanced Value Rail Kit** Value Rail Kit, half extension, extended inner slide member: • Works for all 438mm wide Intel® Rack Chassis 1U, 2U, 4U • Adjustment within 609.6mm~765mm to fit difference depth rack • 424.2mm maximum travel length • 2/3 extension from rack • 130 lbs. (59 Kgs) max support weight • Tool-less chassis attach • Tools required to attach to rails to rack **NOTE:** No cable management arm support on Intel® Server H2000G Chassis	• Accessory Kit • Spare FRU
iPC – AXXFULLRAIL 	MM# - 939209 UPC - 00735858291989 EAN - 5032037070546 MOQ - 1	**2U+ Premium quality rails** • Travel distance 780mm • Full extension from rack • Kit includes: Rails, screws, installation manual • 99.2lbs (45Kg) max support weight **NOTE:** No cable management arm support on Intel® Server H2000G Chassis	• Accessory Kit

3.4 Miscellaneous Accessory Options

Intel Product Code	Order Information	Product Description	Product Type
iPC – AXXRMM4LITE2 	MM# - 946514 UPC – 00735858307413 EAN – 5032037080750 MOQ - 10	Activation key for advanced management features	• Accessory Kit
iPC – AHWBPFABKIT 	MM# - 948933 UPC – 00735858343756 EAN - 5032037104708 MOQ - 1	**Server Board Fabric Kit for Dual Fabric Processor Configuration (CPU #1 and CPU #2)** (1) Dual Port IFT Carrier (2) Fabric Processor Clip (1) Fabric Sideband Cable (1) Internal Fabric Cable – CPU2, Riser 2 - Left Curved Cable Assy, 371mm, Non Inverted (1) Internal Fabric Cable – CPU1, Riser 2 - Straight Cable Assy, 150.0mm, Non Inverted (1) Internal Fabric Cable – CPU1, Riser 1 – Straight Cable Assy, 160.0mm, Inverted (1) Internal Fabric Cable – CPU2, Riser 1 – Curved Cable Assy, 318mm, Inverted (1) Screw M2x0.4, 4.0mm STL, Zn (1) Mylar Air Baffle Assembly **NOTE**: The IFT carrier has support for two IFT ports, one from each processor.	• Accessory Kit

Intel Product Code	Order Information	Product Description	Product Type
iPC - AHWBPFABKITCPU1 	**M**M# - 958620 UPC – 00735858344371 EAN – 5032037105163 MOQ – 1	**Server Board Fabric Kit for Single Fabric Processor Configuration (CPU #1 Only)** (1) Dual Port IFT Carrier (1) Fabric Processor Clip (1) Fabric Sideband Cable (1) Internal Fabric Cable, CPU1, Riser2 – 150.0mm, Non Inverted (1) Screw M2x0.4, 4.0mm STL, Zn (1) Mylar Air Baffle Assembly **NOTE:** The IFT carrier has support for two IFT ports, one from each processor.	• Accessory Kit

4 Intel® RAID Controller Add-in Cards

Intel® RAID offers a broad portfolio of RAID solutions designed to address the storage-related challenges of the modern day datacenter as well as the small business. The Intel® S2600BP product family includes support for the latest generation of 12 Gb/s SAS Intel® RAID add-in cards, modules, expanders, and accessories.. See the published Tested Hardware and OS List for a full list of validated Intel RAID cards.

Additional information for Intel RAID products can be found at the following Intel web sites:

http://www.intelraid.com/files/Intel_RMS3_Brief_Final.pdf
http://www.intelraid.com/files/Intel-1106-RAID-Brochure_New2014102.pdf
http://www.intelraid.com/files/RAID_Matrix_20142.pdf

4.1 Intel® Integrated RAID Module RMS3 Product Family – SAS 3.0 (12 Gb/s)

Intel Product Code	Order Information	Product Description	Product Type
iPC – RS3DC080 	MM# – 934643 UPC – 00735858265355 EAN - 5032037107174 MOQ – 5	**Intel® RAID Controller RS3DC080** Low Profile, half length, (MD2 Compliant) PCIe* add-in card 8 internal SAS / SATA ports LSI* SAS3108 ROC RAID Levels – 0, 1, 5, 6, 10, 50, and 60 Embedded 1GB DDR3 Cache Memory *Supports Maintenance Free Backup Unit– iPC **AXXRMFBU4** (See note) Supports the following Intel® RAID Accessory Options: **AXXRPFKHA2** Intel® RAID High Availability Activation Key **AXXRPFKSSD2** Intel® RAID SSD Cache with Fast Path I/O **AXXRPFKDE2** Intel® RAID Drive Encryption Management **AXXRPFKSNSH2** Intel® RAID Rapid Recovery Snapshot SAS Data cables not included . Must be purchased separately	• Accessory Kit

Intel Product Code	Order Information	Product Description	Product Type
iPC – RS3DC040 	MM# – 934644 UPC – 00735858265362 EAN - 5032037107167 MOQ – 5	**Intel® RAID Controller RS3DC040** Low Profile, half length, (MD2 Compliant) PCIe* add-in card 4 internal SAS / SATA ports LSI* SAS3108 ROC RAID Levels – 0, 1, 5, 6, 10, 50, and 60 Embedded 1GB DDR3 Cache Memory *Supports Maintenance Free Backup Unit – iPC **AXXRMFBU4** (See note) Supports the following Intel® RAID Accessory Options: **AXXRPFKSSD2** Intel® RAID SSD Cache with Fast Path I/O **AXXRPFKDE2** Intel® RAID Drive Encryption Management **AXXRPFKSNSH2** Intel® RAID Rapid Recovery Snapshot SAS Data cables not included. Must be purchased separately	• Accessory Kit
iPC – RS3SC008 	MM# – 928223 UPC – 00735858266956 EAN – 5032037068567 MOQ – 5	**Intel® RAID Controller RS3SC008** Low Profile, half length, (MD2 Compliant) PCIe* add-in card 8 external SAS / SATA ports LSI* SAS3108 ROC RAID Levels – 0, 1, 5, 6, 10, 50, and 60 Embedded 1GB DDR3 Cache Memory Supports Maintenance Free Backup Unit – iPC **AXXRMFBU4** (See note) Supports the following Intel® RAID Accessory Options: **AXXRPFKHA2** Intel® RAID High Availability Activation Key **AXXRPFKSSD2** Intel® RAID SSD Cache with Fast Path I/O **AXXRPFKDE2** Intel® RAID Drive Encryption Management **AXXRPFKSNSH2** Intel® RAID Rapid Recovery Snapshot SAS Data cables not included. Must be purchased separately	• Accessory Kit

Intel Product Code	Order Information	Product Description	Product Type
iPC – RS3UC080 	MM# – 928218 UPC – 00735858267649 EAN – 5032037053938 MOQ – 5	**Intel® RAID Controller RS3UC080** Low Profile, half length, (MD2 Compliant) PCIe* add-in card Entry Level SAS RAID Card 8 internal SAS / SATA ports LSI* SAS3008 IOC RAID Levels – 0, 1, 1E, 10, and JBOD SAS Data cables not included. Must be purchased separately	• Accessory Kit
iPC – RS3WC080 	MM# – 928215 UPC – 00735858267656 EAN – 5032037053945 MOQ – 5	**Intel® RAID Controller RS3WC080** Low Profile, half length, (MD2 Compliant) PCIe* add-in card Entry Level SAS RAID Controller 8 internal SAS / SATA ports LSI* SAS3008 IOC RAID Levels – JBOD, 0, 1, 10 & Hybrid 5, 50 SAS Data cables not included. Must be purchased separately	• Accessory Kit
iPC – RS3GC008 	MM# – 928220 UPC – 00735858267175 EAN – 5032037053839 MOQ – 5	**Intel® RAID Controller RS3GC008** Low Profile, half length, (MD2 Compliant) PCIe* add-in card Entry Level SAS Card 8 external SAS / SATA ports LSI* SAS3008 IOC RAID Levels – JBOD (SAS/SATA Connectivity) SAS Data cables not included. Must be purchased separately	• Accessory Kit

NOTE: Maintenance Free Backup Unit **AXXRMFBU4** is supported at **Server Board Level only**, not compatible with Compute Module within Intel® Server Chassis.

4.2 Intel® RAID Accessory Options

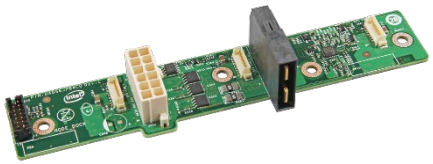
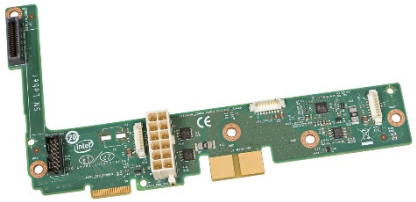
Table 11. List of Intel® RAID Accessories Options

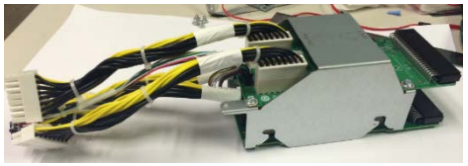
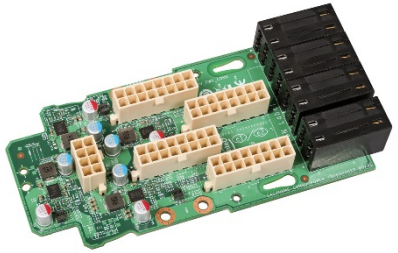
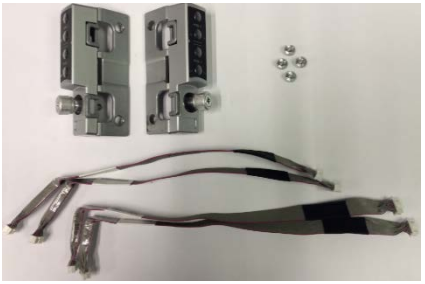
Intel Product Code	Order Information	Product Description	Product Type
iPC - RKSATA4R5	MM# - 916346 UPC – 00735858238861 EAN – 5032037033640 MOQ - 5	**RAID activation key** Used to enable onboard SATA controllers to support embedded ESRT2 SW RAID 5	• Accessory Kit
iPC - AXXRPFKHY5	MM# - 933690 UPC – 00735858276856 EAN – 5032037060462 MOQ - 5	**RAID activation Key** Activates RAID Levels: 5, 50 (enables LSI* IOC down on bridge board)	• Accessory Kit
iPC - VROCSTANMOD	MM# - 951605 UPC – 00735858337243 EAN – 5032037100007 MOQ - 5	**Intel® Virtual RAID on CPU (VROC) – Standard Model Key** Intel® VROC Activation Key for Intel NVMe SSDs and 3rd Party NVMe Enables RAID (0, 1, 10) functionality on NVMe	• Accessory Kit

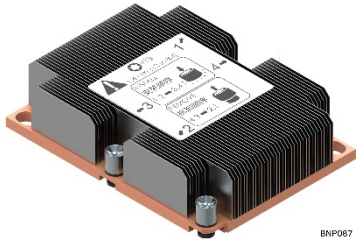
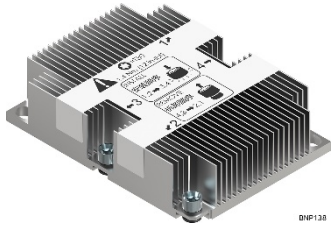
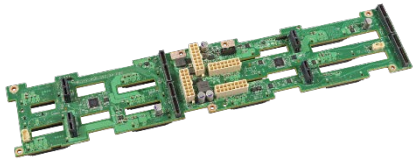
Intel Product Code	Order Information	Product Description	Product Type
iPC - AXXRPFKSSD2 	MM# - 915316 UPC - 735858221467 EAN - 5032037051699 MOQ - 5	**Intel® RAID SSD Cache with Fast Path *I/O** Upgrade Key to enable SSD Cache with Fast path I/O for Intel's RAID RS25 family of ROC products.	• Accessory Kit
iPC - AXXRPFKDE2 	MM# - 915317 UPC - 735858221474 EAN - 5032037051705 MOQ - 5	**Intel® RAID Drive Encryption Management** Upgrade Key to enable Drive Encryption Management for Intel's RAID RS25 family of ROC products	• Accessory Kit
iPC - AXXRPFKSNSH2 	MM# - 915318 UPC - 735858221481 EAN - 5032037051712 MOQ - 5	**Intel® RAID Rapid Recovery Snapshot** Upgrade Key to enable Rapid Recovery Snapshot for Intel's RAID RS25 family of ROC products.	• Accessory Kit
iPC - AXXRPFKHA2 	MM# – 927236 UPC – 00735858257909 EAN - 5032037049672 MOQ – 1	**Intel® RAID High Availability Activation Key** Activation Key to enable the Intel® RAID Controller RS3SC008 to provide failover for two servers in a cluster or shared storage environment.	• Accessory Kit

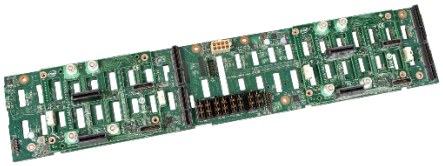
5 Spare and Replacement Parts (FRUs)

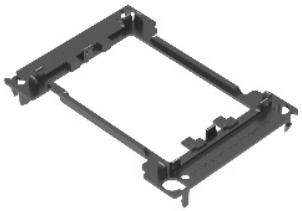
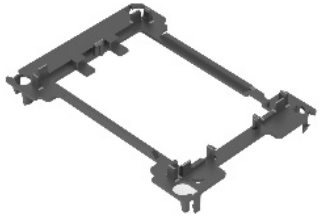
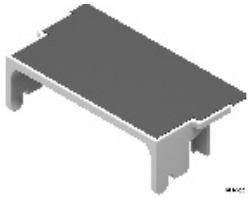
System integrators and distributors may choose to hold additional stock of individual system components. Intel makes available the following Spare and Replacement Parts (FRUs) compatible with the specified Intel server family.

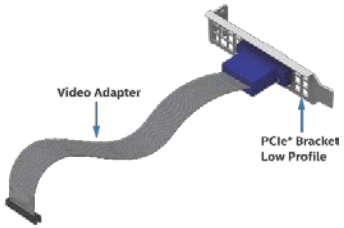
Intel Product Code	Order Information	Product Description	Product Type
iPC - FHWBPNPB 	MM# - 952109 UPC - 00735858329019 EAN - 5032037095181 MOQ - 1	Spare Node Power Board (Compute Module Power Docking Board) for Intel® Compute Module HNS2600BP Product Family	• Spare FRU
iPC – FHWBPNPB24 	MM# - 952110 UPC - 00735858329026 EAN - 5032037095198 MOQ - 1	Spare Node Power Board (Compute Module Power Docking Board) for Intel® Compute Module HNS2600BP24 Product Family	• Spare FRU
iPC - FPWRCABLENA	MM# - 879287 UPC - 735858181129 EAN - 503203702015738 MOQ - 1	North American Power Cord Spare	• Spare FRU

Intel Product Code	Order Information	Product Description	Product Type
iPC - FXXCRPSPDB2 	MM# - 935576 UPC - 00735858288460 EAN - 5032037067782 MOQ - 1	Spare Power Distribution Board Module including 2 boards, cables, a bus pair and supporting bracket, for Common Redundant Power Supply 2130W of Intel® Server Chassis H2000G Product Family	• Spare FRU
iPC - FXXCRPSPIB 	MM# - 943484 UPC - 00735858302722 EAN - 5032037077507 MOQ - 1	Spare power interposer board module for Intel® Server Chassis H2224XXLR3 1 x bracket included 1 x 5V power cable included 1 x power interposer board included	• Spare FRU
iPC - FH2000FPANEL2 	MM# - 935578 UPC - 00735858288415 EAN - 5032037067737 MOQ - 1	Spare front control panel kit (2 mini-front panel boards and rack handle assembly, etc.) for Intel® Server Chassis H2000G Product Family	• Spare FRU

Intel Product Code	Order Information	Product Description	Product Type
iPC - FXXHP78X108HS 	MM# - 956548 UPC – 00735858337595 EAN - 5032037100274 MOQ - 1	1U Standard Cu/Al 78mm x 108mm 53fin Heat Sink (Rear Heat Sink) – CPU 1 use only	• Spare FRU
iPC - FXXEA78X108HS 	MM# - 948936 UPC - 00735858328593 EAN - 5032037094832 MOQ - 1	1U Standard Ex-Al 78mm x 108mm Heat Sink (Front Heat Sink) – CPU 2 use only	• Spare FRU
iPC - FHW12X35HS12G 	MM# - 935567 UPC - 00735858288446 EAN - 5032037067768 MOQ - 1	12Gb SAS/SATA 12 x 3.5" Spare backplane for Intel® Server Chassis H2312XXLR3	• Spare FRU

Intel Product Code	Order Information	Product Description	Product Type
iPC - FHW24X25HSBP 	MM# - 948934 UPC - 00735858343695 EAN - 5032037104692 MOQ – 1	12Gb SAS/SATA 24 x 2.5", Spare backplane for Intel® Server Chassis H2224XXLR3 1 x Backplane Board included 2 x Backplane Interposer Boards included.	• Spare FRU
iPC - FXX4056DRFAN2 	MM# - 935566 UPC - 00735858288439 EAN - 5032037067751 MOQ - 1	40x56mm Dual Rotor Fan spare	• Spare FRU
iPC - FXX2130PCRPS 	MM# - 948196 UPC - 00735858311939 EAN - 5032037084062 MOQ - 1	2130W AC Common Redundant Power Supply 80Plus Platinum-Efficiency	• Spare FRU

Intel Product Code	Order Information	Product Description	Product Type
iPC – FXXCPUCLIP 	MM # - 958248 UPC – 00735858344425 EAN - 5032037105217 MOQ - 1	Spare CPU clips, (2) Standard CPU clips in a box	• Spare FRU
iPC- FXXCPUCLIPF 	MM# - 958275 UPC – 00735858344432 EAN - 5032037105224 MOQ - 1	Spare CPU clips, (2) Fabric CPU clips in a box	• Spare FRU
iPC – AXXBPBPINSCOV 	MM# - 958483 UPC – 00735858344388 EAN – 5032037105170 MOQ - 1	(1) Bolster Plate Insulator Cover for CPU #1 processor socket	• Spare FRU

Intel Product Code	Order Information	Product Description	Product Type
iPC – AXXBPVIDCBL 	MM # - 958366 UPC – 00735858344364 EAN – 5032037105156 MOQ - 1	(1) VGA cable bracket accessory	• Spare FRU
iPC – FXX25HSCAR3 	MM# – 958244 UPC – 00735858345668 EAN – 5032037106153 MOQ – 1	2.5” Tool Less Hot Swap Drive Carrier Spare 2.5” Tool less drive hot swap carrier	• Spare FRU
iPC – FXX35HSCAR2 	MM# – 958245 UPC – 00735858345675 EAN – 5032037106160 MOQ – 1	3.5” Tool Less Hot Swap Drive Carrier Spare 3.5” Tool less drive hot swap drive carrier Includes mounting screws for mounting 2.5” SSDs.	• Spare FRU

6 Extended Warranty

Image	Order Information	Description
	iPC – SVCEWHWSY MM# – 923113 MOQ – 1	Two year extended warranty for Intel® Server Systems or Intel® Server Knock Down Kits + 4 x Intel® Compute Modules. Intel® RAID controller extended warranty is purchased separately.
	iPC - SVCEWDPBD MM# – 911294 MOQ – 1	Two year extended warranty for Intel® Server Boards that support two processors.
	iPC - SVCEWHWB MM# – 914905 MOQ – 1	Two year extended warranty for single Intel® Compute Module

Glossary of Terms

A list of Acronyms and Terms used throughout this document

Acronym or Term	Definition	Acronym or Term	Definition
EAN	International Article Number (Barcode)	LP	Low Profile
EMI	Electromagnetic Interference	RAID	Redundant Array of Independent Drives
ESRT2	Intel® Embedded Server RAID Technology 2	Required Option	Hardware that must be added to the shipping configuration for the system to operate
UPC	Universal Product Code (Barcode)	RMM4 Lite	Intel® Remote Management Module 4 Lite Activation key
FRU	Field Replaceable Unit	ROC	RAID on Chip
iPC	Intel Product Code	RSTe	Intel® Rapid Stroage Technology
iPN	Intel Product Number	SAS	Serial Attached SCSI
JBOD	Just a bunch of drives	SATA	Serial ATA
KDK	Knock-Down-Kit – (Chassis only product)	SFP	Small Form factor Pluggable
KVM	Keyboard / Video / Mouse	SKU	Stock Keeping Unit
MM#	Master Material order number	SSD	Solid State Drive
MOQ	Mimimum Order Quantity		
NVMe	NVM Express – based on Non-Volatile Memory Host Controller Interface Specification (NVMHCI)		
Optional Accessory	Hardware that can be added to the system to enhance the default feature set of the shipping configuration		