



# **Intel® Server S2600ST Product Family**

## **Intel® Server Board S2600ST Product Family**

## **Intel® Server Chassis P4000 Product Families**

### ***Configuration Guide***

A reference document to identify available Intel® Server building blocks, accessories, and spare parts associated with the Intel® Server S2600ST product family.

**Rev 2.2**

**May 2021**

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## Document Revision History

Date Published	Revision	Revision Change Description
June 2017	1.0	Production release
June 2017	1.01	Updated product codes for accessory kits and spares
July 2017	1.02	Updated missing UPC and EAN codes for accessory kits and spares
August 2017	1.03	Added compatible legacy accessory kits
August 2017	1.04	Updated iPC-FXX750PCRPS MM# Updated iPC-S2600STQ, iPC-BBS2600STB and iPC-BBS2600STQ availability date
October 2017	1.05	Updated availability dates for all products Updated information of 1U and 2U heatsinks Added Intel® VROC keys
June 2018	1.06	Changed Intel® VROC keys to RAID accessories options Added title to the description of products that didn't have one Updated iPC-FXX750PCRPS UPS and EAN codes Updated wrong numbers in the table of contents Added images to AXXSTPHMKIT2U and AXXSTPHMKIT1U kits
September 2018	1.07	Added retimer card Updated links to intel webpages Added EOL information for chassis P4304XXMFEN2
October 2018	1.08	Fixed a typo on page 6 changed AXXTPE8 for AXXTMCHNE8 Added heatsink as Required Items-Sold Separately on pages 13 and 14 Added EOL information to FUP550SNRPS
April 2019	2.0	Added S2600STxR information including support for 2 <sup>nd</sup> Gen Intel® Xeon® processor Scalable family Updated formatting and edited for clarity
June 2019	2.1	Reworded the note of processor row in Table 4 Corrected information on Included and Required Items sections of Table 9 Changed picture of front bezel FUPBEZELHSD2 in Table 25 Changed MM# of RSP3WD080E, RSP3TD160F and RSP3DD080F RAID controllers on Table 26 Added EOL information to AXXCWIOS
May 2021	2.2	Added A2U4PRTCXCXK cable kit Fixed some typos

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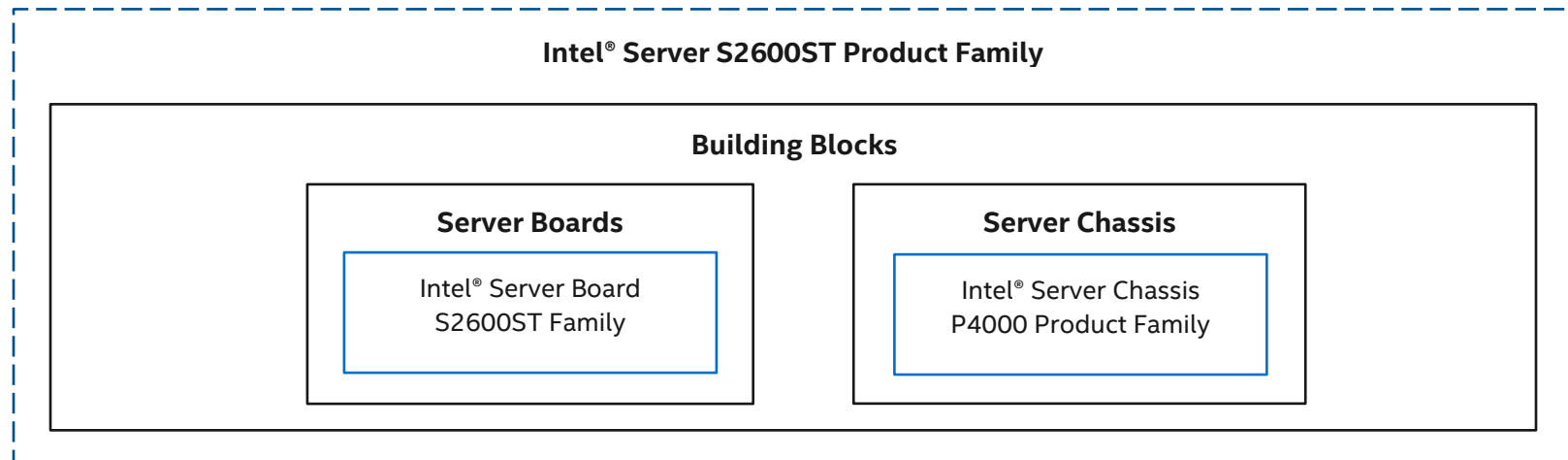


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# 1. Intel® Server Family Overview

This document provides a catalog of available Intel® server products, accessories, and spares in the Intel® Server S2600ST product family.



**Figure 1. Intel® Server S2600ST product family overview**

## 1.1 Configuration Overview

The Intel Server S2600ST product family is offered as server building blocks.

- **Intel® Server Board S2600ST family** – A family of server board only products (server building block option and spare FRU).
- **Intel® Server Chassis P4000 product family** – A family of pedestal/4U rack mount server chassis only products. See Section 1.4 for compatible chassis models.

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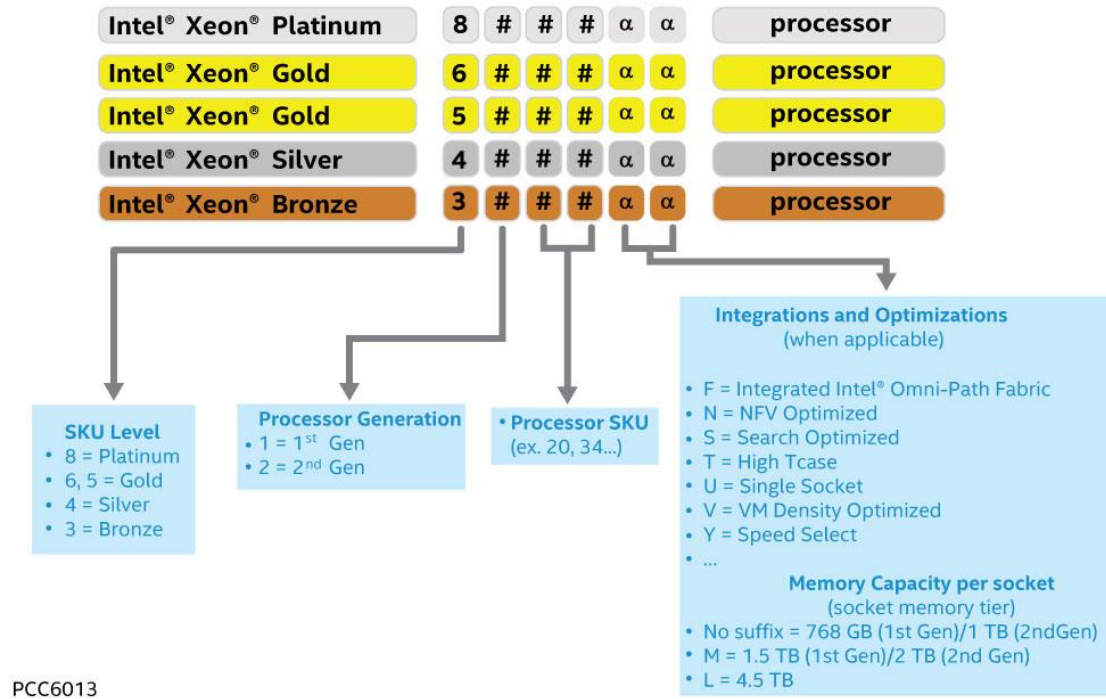
**Important Note:** All product order codes ending with 'R' identify new product versions that are available as of revision 2.0 of this document. While product order codes not ending with 'R' may be referenced within this document, only product order codes ending in '(R)' cover both SKU derivations. (i.e. S2600STB(R) covers S2600STB and S2600STBR.)

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### 1.1.1 Processor Support

The Intel® Server S2600ST product family has support for 1<sup>st</sup> and 2<sup>nd</sup> Gen Intel® Xeon® processor Scalable family as identified in Figure 2.

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



**Figure 2. Intel® Xeon® processor Scalable family generation identification**

**Note:** In 2019, Intel released the 2<sup>nd</sup> Gen Intel® Xeon® processor Scalable family. To enable support for the new processor family, Intel created an updated system software stack including the system BIOS and other system firmware.

In support of the 2<sup>nd</sup> Gen Intel Xeon processor Scalable family, Intel began pre-loading the supporting system software stack onto all server boards in the Intel® Server S2600ST product family. All server boards with pre-loaded system software stacks compatible with the 2<sup>nd</sup> Gen Intel® Xeon® processor Scalable family can be identified by a product order code ending in 'R'.

Existing server boards in the Intel® Server S2600ST product family with product codes that do NOT end in 'R' can be made to support the 2<sup>nd</sup> Gen Intel® Xeon® processor Scalable family by updating the system software stack. A system update package (SUP) with the latest system software stack can be downloaded from <https://downloadcenter.intel.com>.

**Table 1. 1<sup>st</sup> Gen Intel® Xeon® processor Scalable family feature comparison**

Feature	81xx Platinum	61xx Gold	51xx Gold	41xx Silver	31xx Bronze
# of Intel® UPI links	3	3	2	2	2
Intel® 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 MT/s	2666 MT/s	2400 MT/s	2400 MT/s	2133 MT/s
Memory capacity	768 GB 1.5 TB (select SKUs)	768 GB 1.5 TB (select SKUs)	768 GB	768 GB	768 GB
RAS capability	Advanced	Advanced	Advanced	Standard	Standard
Intel® Turbo Boost Technology	Yes	Yes	Yes	Yes	No
Intel® Hyper-Threading Technology	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. 2<sup>nd</sup> Gen Intel® Xeon® processor Scalable family feature comparison**

Feature	82xx Platinum	62xx Gold	52xx Gold	42xx Silver	32xx Bronze
# of Intel® UPI links	3	3	2	2	2
Intel® 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 (1 DPC)	2933 MT/s	2933 MT/s	2666 MT/s	2400 MT/s	2133 MT/s
Max DDR4 speed (2 DPC)	2666 MT/s	2666 MT/s	2666 MT/s	2400 MT/s	2133 MT/s
Memory capacity	1 TB 2 TB (select SKUs) 4.5 TB (select SKUs)	1 TB 2 TB (select SKUs) 4.5 TB (select SKUs)	1 TB 2 TB (select SKUs) 4.5 TB (select SKUs)	1 TB	1 TB
RAS capability	Advanced	Advanced	Advanced	Standard	Standard
Intel® Turbo Boost Technology	Yes	Yes	Yes	Yes	No
Intel® Hyper-Threading Technology	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
Intel® AVX-512 VNNI	Yes	Yes	Yes	Yes	Yes
# of PCIe* lanes	48	48	48	48	48

### 1.1.2 Memory Support

The Intel® Server Board S2600ST product family has support for the following memory:

- Registered DDR4 (RDIMM), Load Reduced DDR4 (LRDIMM) at rates of up to 2933 MT/s (Processor dependent. See Table 1 and Table 2.)
- DDR4 standard voltage of 1.2 V

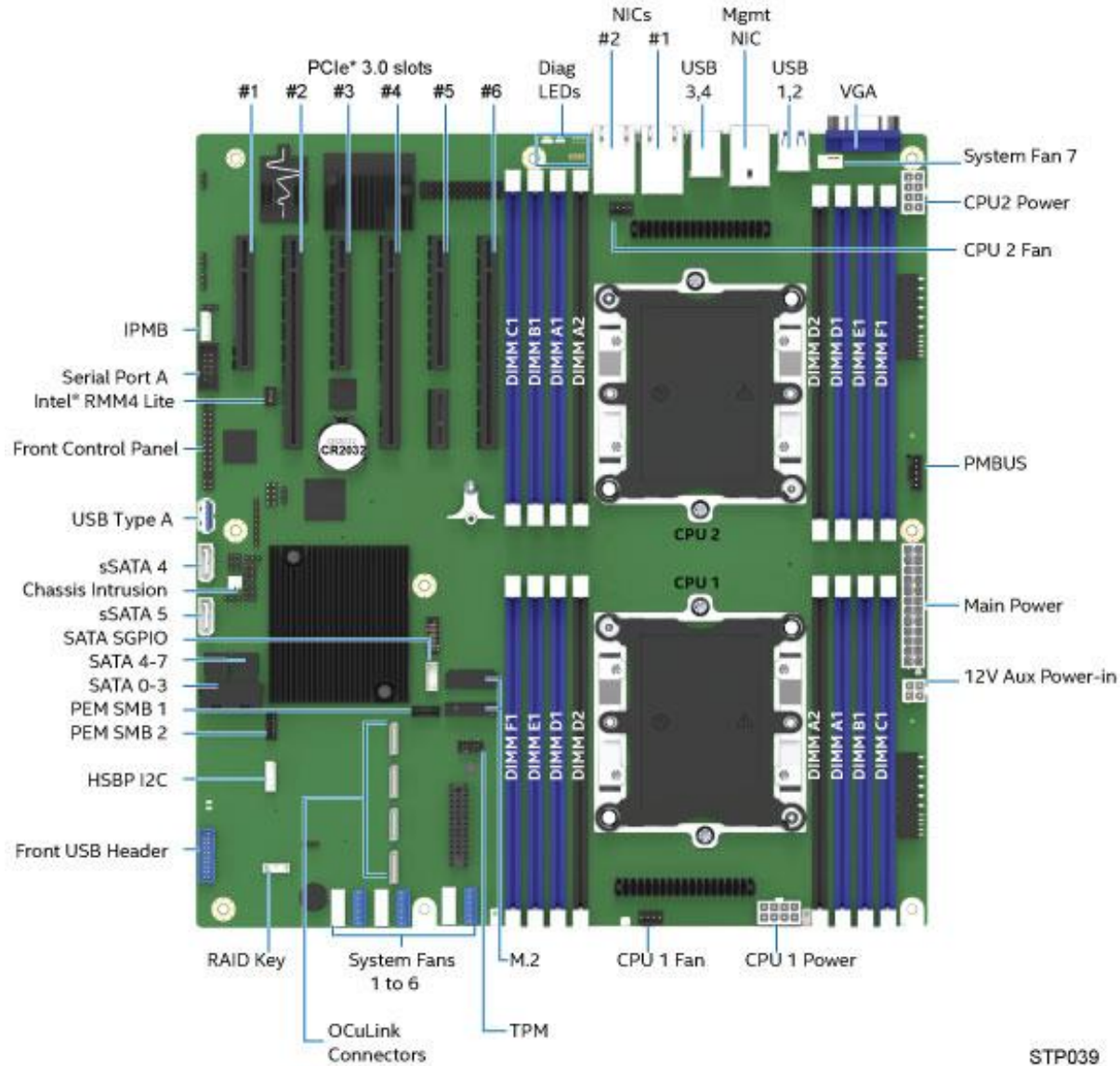
## 1.2 Additional Information and Software

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
<b>For in-depth technical information about this product family</b>	<i>Intel® Server Board S2600ST Technical Product Specification</i> <i>Intel® Server System P4000G Product Family Technical Product Specification</i> <i>Intel® Remote Management Module 4 (Intel® RMM4) and BMC Embedded Web Console User Guide</i> <i>Intel® Remote Management Module 4 Technical Product Specification</i> <i>Intel® Server System BIOS Setup Utility Guide</i> <i>Safety and Regulatory Compliance Information for Intel® Server System 4600/2600/2400/1600 Families</i>
<b>For system integration and service instructions</b>	<i>Intel® Server Chassis P3404XXMFEN2/P4304XXMUXX Product Family System Integration and Service Guide</i> <a href="https://www.intel.com/content/www/us/en/support/articles/000024348/">(https://www.intel.com/content/www/us/en/support/articles/000024348/)</a>
<b>For server configuration guidance and compatibility</b>	Intel® Server Configurator Tool ( <a href="http://serverconfigurator.intel.com/">http://serverconfigurator.intel.com/</a> )
<b>For system firmware updates, onboard device drivers, and software</b>	Download Center ( <a href="https://downloadcenter.intel.com/search?keyword=S2600ST">https://downloadcenter.intel.com/search?keyword=S2600ST</a> )
<b>For system power budget guidance</b>	Intel® Server Board S2600ST Product Family Power Budget and Thermal Configuration Tool ( <a href="https://downloadcenter.intel.com/download/27478/">https://downloadcenter.intel.com/download/27478/</a> )
<b>For a complete list of supported processors, memory, add-in cards, and peripherals</b>	Intel® Server Board S2600ST family support site ( <a href="https://www.intel.com/content/www/us/en/support/products/93168/server-products/server-boards/intel-server-board-s2600st-family.html">https://www.intel.com/content/www/us/en/support/products/93168/server-products/server-boards/intel-server-board-s2600st-family.html</a> )
<b>Product warranty Information</b>	Warranty Terms and Conditions ( <a href="https://www.intel.com/content/www/us/en/support/services/000005886.html">https://www.intel.com/content/www/us/en/support/services/000005886.html</a> )

### 1.3 Intel® Server Board S2600ST Product Family



STP039

Figure 3. Intel® Server Board S2600ST onboard features

**Note:** Intel® Server Board S2600STQ(R) has two OcuLink connectors.

Table 4 lists the features of the available server boards in the Intel® Server Board S2600ST product family.

**Table 4. Intel® Server Board S2600ST product family features**

Intel® Server Board Feature	S2600STB(R)	S2600STQ(R)
<b>Processor</b>	<ul style="list-style-type: none"> <li>• (2) – LGA3647-0 (Socket P) processor sockets</li> <li>• Supports (1) or (2) processors from the 1<sup>st</sup> or 2<sup>nd</sup> Gen Intel® Xeon® processor Scalable family (Platinum, Gold, Silver, and Bronze). Note: Previous generation Intel® Xeon® processors are not supported.</li> <li>• Maximum supported Thermal Design Power (TDP) of up to 205 W (board only)</li> </ul> <p><b>Note:</b> Server systems based on this server board family may support a lower maximum Thermal Design Power (TDP). See the appropriate chassis specifications for maximum supported TDP.</p>	
<b>Processor Intel® UPI Links</b>	2	
<b>Memory</b>	<ul style="list-style-type: none"> <li>• (16) – total DIMM slots (8 per processor) <ul style="list-style-type: none"> <li>○ (6) – memory channels per processor</li> <li>○ (1) – DIMM slot per channel on (4) channels; (2) – DIMM slots per channel on (2) channels</li> </ul> </li> <li>• DDR4 Registered DIMM (RDIMM) and Load Reduced DIMM (LRDIMM), up to 2933 MT/s (dependent on processor), 1.2 V</li> </ul>	
<b>Intel® C62x Series Chipset</b>	Intel® C624 Chipset	Intel® C628 Chipset
<b>Intel® QAT</b>	No	Supported
<b>LAN</b>	<ul style="list-style-type: none"> <li>• Onboard dual-port RJ45 10 GbE</li> <li>• Optional riser aligned to slot 5 with (2) 10 Gb SFP+ connectors</li> </ul>	
<b>Onboard PCIe* NVMe*</b>	<ul style="list-style-type: none"> <li>• (4) – OCUlink connectors</li> <li>• Intel® VMD support</li> <li>• Intel® VROC support (accessory option)</li> </ul>	<ul style="list-style-type: none"> <li>• (2) – OCUlink connectors</li> <li>• Intel® VMD support</li> <li>• Intel® VROC support (accessory option)</li> </ul>
<b>Onboard SATA</b>	<ul style="list-style-type: none"> <li>• (12) – SATA 6 Gbps ports (6 Gb/s, 3 Gb/s and 1.5 Gb/s transfer rates supported) <ul style="list-style-type: none"> <li>○ (2) – single port 7-pin SATA connectors</li> <li>○ (2) – M.2 connectors – SATA/PCIe*</li> <li>○ (2) – 4-port mini-SAS HD (SFF-8643) connectors</li> </ul> </li> <li>• Embedded SATA Software RAID <ul style="list-style-type: none"> <li>○ Intel® Rapid Storage RAID Technology (Intel® RSTe) 5.0</li> <li>○ Intel® Embedded Server RAID Technology 2 1.60 with optional RAID 5 key support</li> </ul> </li> </ul> <p><b>Note:</b> Intel Embedded Server RAID Technology 2 is supported on 8-port SATA controller only.</p>	
<b>PCIe* Add-In Card Slots</b>	<ul style="list-style-type: none"> <li>• Slot 1 – PCIe* 3.0 x8 slot (x8 electrical) handled by CPU2</li> <li>• Slot 2 – PCIe* 3.0 x16 slot (x16 electrical) handled by CPU2 (riser capable)</li> <li>• Slot 3 – PCIe* 3.0 x8 slot (x8 electrical) handled by CPU2</li> <li>• Slot 4 – PCIe* 3.0 x16 slot (x16 electrical) handled by CPU2</li> <li>• Slot 5 – PCIe* 3.0 x8 slot (x8 electrical) handled by CPU1</li> <li>• Slot 6 – PCIe* 3.0 x16 slot (x16 electrical) handled by CPU1 (riser capable)</li> </ul>	
<b>Video</b>	<ul style="list-style-type: none"> <li>• Integrated 2D video controller</li> <li>• 16MB of DDR4 video memory</li> <li>• (1) – DB-15 external connector</li> </ul>	
<b>USB</b>	<ul style="list-style-type: none"> <li>• (2) – external USB 3.0 ports</li> <li>• (2) – external USB 2.0 ports</li> <li>• (1) – internal type-A USB 3.0 port</li> <li>• (1) – internal 2 x 10-pin connector for optional 2x USB 2.0/3.0 port front panel support</li> </ul>	



Intel® Server Board Feature	S2600STB(R)	S2600STQ(R)
<b>Serial Port</b>	<ul style="list-style-type: none"> <li>• (1) – internal DH-10 serial-A port connector</li> </ul>	
<b>Server Management</b>	<ul style="list-style-type: none"> <li>• Integrated baseboard management controller, IPMI 2.0 compliant</li> <li>• Support for Intel® Server Management software</li> <li>• Dedicated onboard RJ45 management port</li> <li>• Advanced server management via Intel® RMM4 Lite – iPC <b>AXXRMM4LITE2</b> (accessory option)</li> </ul>	
<b>Security</b>	<ul style="list-style-type: none"> <li>• Trusted platform module 2.0 (Rest of World) – iPC <b>AXXTPMENC8</b> (accessory option)</li> <li>• Trusted platform module 2.0 (China Version) – iPC <b>AXXTPMCHNE8</b> (accessory option)</li> </ul>	
<b>System Fan</b>	<ul style="list-style-type: none"> <li>• (2) processor fans through 4-pin headers</li> <li>• Up to (6) front system fans through 6-pin headers</li> <li>• (1) rear system fan through a 4-pin header</li> </ul>	

## 1.4 Intel® Server Chassis P4000 Product Family

The Intel® Server Board S2600ST product family is compatible with the following Intel® Server Chassis P4000 family options:

- Intel® Server Chassis P4304XXMFEN2 (discontinued)
- Intel® Server Chassis P4304XXMUXX

The main features of these chassis options are identified in Figure 4 and Figure 5.

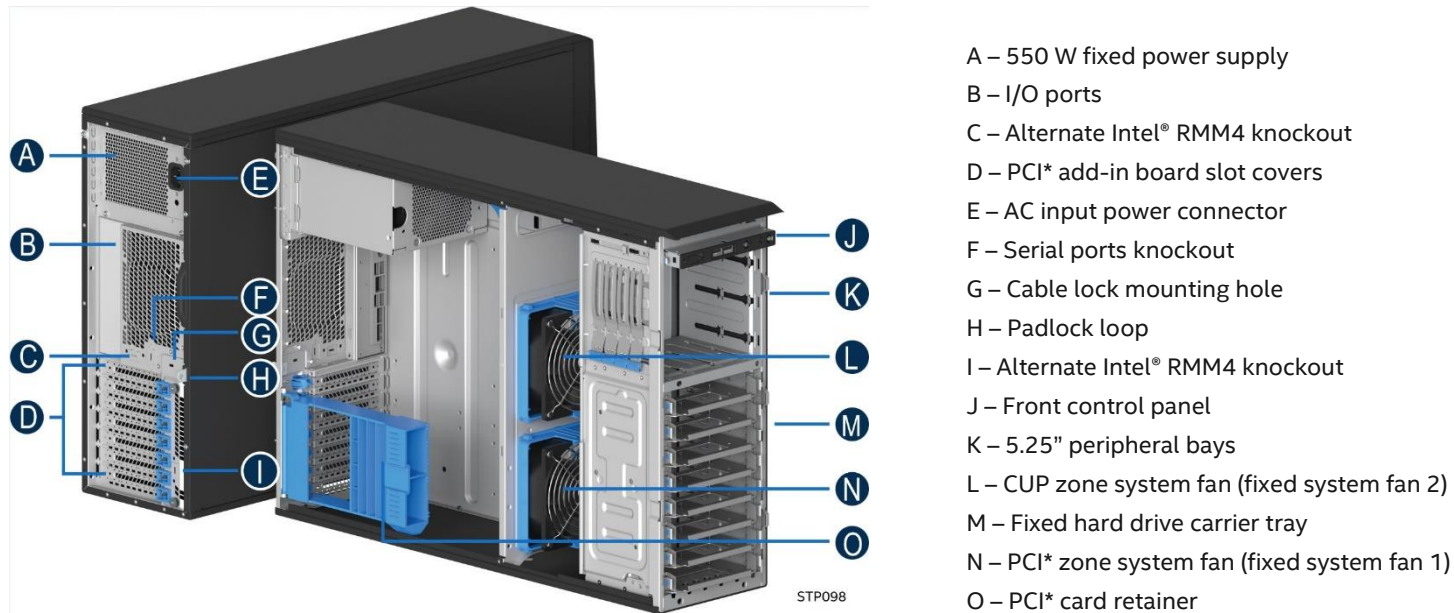
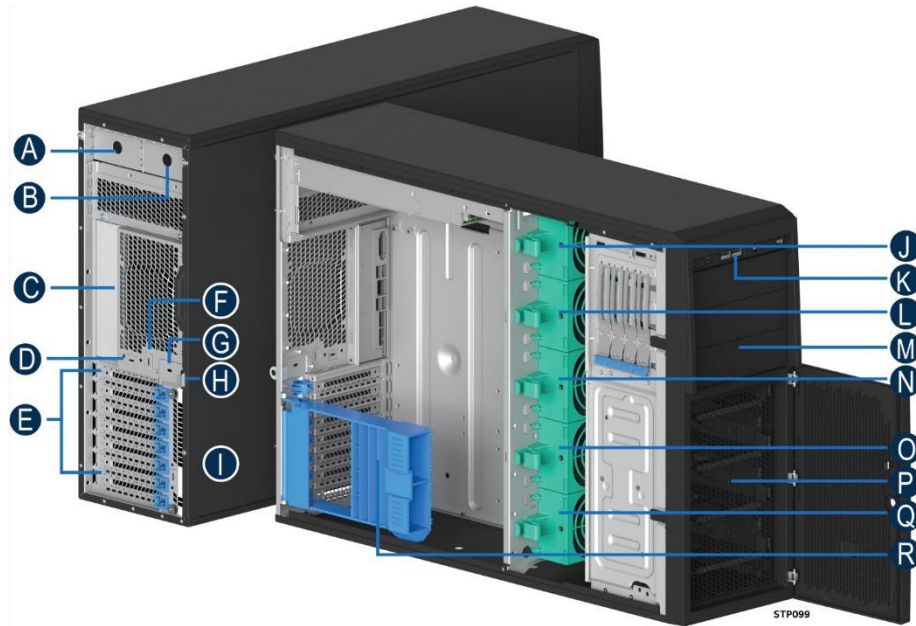


Figure 4. Intel® Server Chassis P4304XXMFEN2 feature set identification



- A – Filler 1 for one hot-swap power supply module
- B – Filler 2 for one hot-swap power supply module
- C – I/O ports
- D – Alternate Intel® RMM4 knockout
- E – PCI\* add-in board slot covers
- F – Serial ports knockout
- G – Cable lock mounting hole
- H – Padlock loop
- I – Alternate Intel® RMM4 knockout
- J – Hot-swap system fan 5
- K – Front control panel
- L – Hot-swap system fan 4
- M – 5.25" peripheral bays
- N – Hot-swap system fan 3
- O – Hot-swap system fan 2
- P – Fixed hard drive carrier tray
- Q – Hot-swap system fan 1
- R – PCI\* card retainer

**Figure 5. Intel® Server Chassis P4304XXMUXX feature set identification**

## 1.5 Available Server Board and Chassis SKU Summary

The following tables provide an overview of available Intel product codes for building blocks and systems within the Intel® S2600ST product family. Each line item identifies key features supported in the shipping Intel SKU. Additional order code information and full product descriptions for each option are provided in later sections.

The following terms are used in the tables:

- **N/A:** Not applicable.
- **Opt:** Accessory option sold separately.
- **Yes:** Option included.

**Table 5. Server board product family summary**

Intel Product Code (iPC)	# of CPU sockets	# of DIMM Slots	# of Add-In Card Slots	Onboard 10GbE LAN ports	Onboard SATA ports (6 Gb)	Onboard NVMe* Ports	Onboard Video	Intel® QAT Support	Onboard System Fan Support
S2600STB(R)	2	16	6	2	12	4	Yes	No	Up to 7
S2600STQ(R)	2	16	6	2	12	2	Yes	Yes	Up to 7

**Table 6. Server chassis product family summary**

Intel Product Code (iPC)	Chassis Form Factor	Fans	Bezel	Power Supply Modules	Air Duct
P4304XXMFEN2	4U	2 fixed	Fixed drive bezel	Yes (1 fixed 550 W)	Yes
P4304XXMUXX	4U	5 hot-swap	Hot-swap drive bezel	Opt (Supports up to 2 hot-swap 750 W or 1600 W)	Yes

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**Note:** Intel® Server Chassis P4304XXMFEN2 is discontinued as of July 1, 2018. See PCN 116128-01 for more details.

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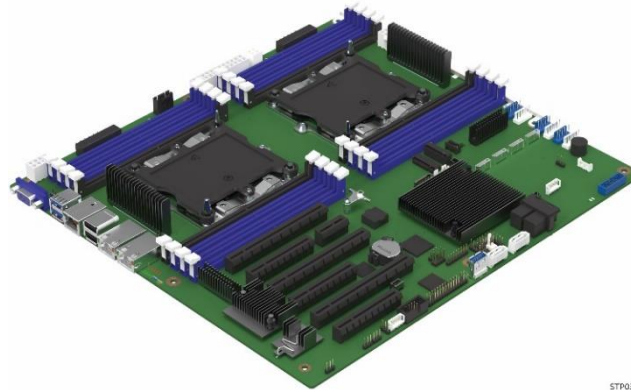
## 2. Server Building Block Options

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

- Supported 4U Intel® Server Chassis P4000 product family option
- Intel® Server Board S2600ST product family option
- Hot-swap or fixed power supply module(s) – dependent on chassis
- Power cord(s)
- Processor
- Memory
- Storage devices
- Storage drive cables



Intel® Server Chassis P4000



Intel® Server Board S2600ST

**Figure 6. Illustration of building block options**

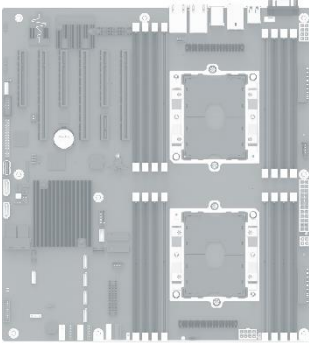
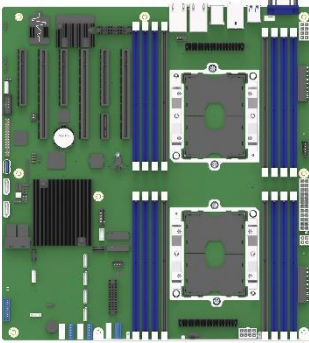
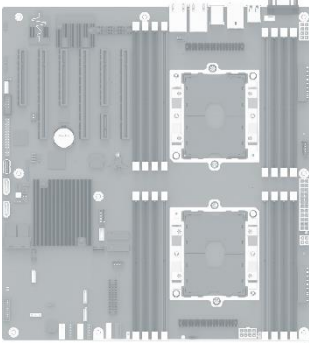
Optional Intel accessories that can be added include the following:

- Intel® SAS/SATA RAID support – PCIe\* add-in card or module and appropriate SAS data cable(s)
- Intel® Virtual RAID On Chip (Intel® VROC) or Intel® Embedded Software RAID Technology 2 SATA RAID 5 NVMe\* key options (configuration specific)
- Intel® Remote Management Module Lite key – to add advanced server management features

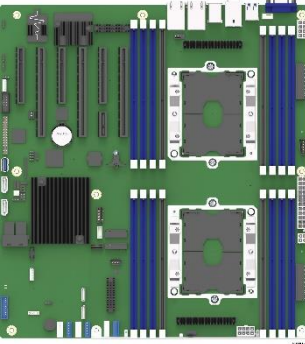
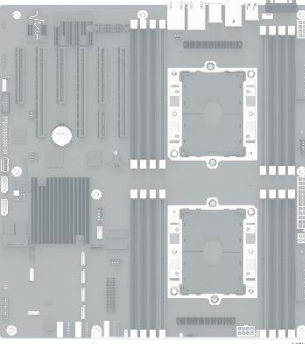
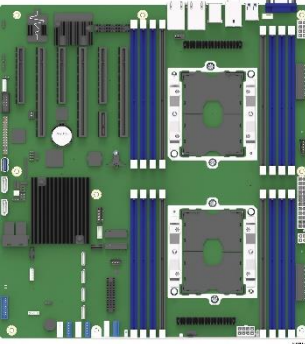
See Chapter 4 for all available options.

## 2.1 Intel® Server Board S2600ST Product Family Options

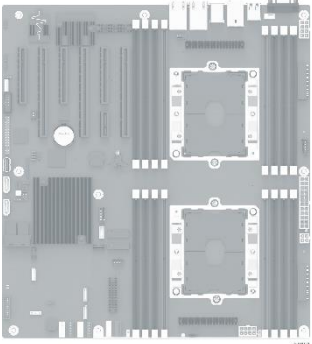
Table 7. Intel® Server Board S2600ST product family options

Product Image	Details	Description
	<p><b>Intel® Server Board S2600STB</b></p> <p>iPC S2600STB  MM# 957180  UPC 00735858344647  EAN 5032037105354  MOQ 1</p> <p><b>Product type</b> Server board only  Building block/spare FRU</p> <p><b>Dimensions (SSI EEB)</b> 12" x 13"  <b>Packaged gross wt.</b> 2.4 kg (5.2 lb)  <b>Un-packaged net wt.</b> 1.9 kg (4.2 lb)</p>	<ul style="list-style-type: none"> <li>• (2) processor sockets compatible with 1<sup>st</sup> and 2<sup>nd</sup> Gen Intel® Xeon® Scalable processors</li> <li>• Intel® C624 chipset</li> <li>• Onboard dual-port RJ45 10 GbE LAN</li> <li>• (4) – onboard PCIe* NVMe* OcuLink connectors</li> <li>• (12) – SATA 6 Gbps ports</li> </ul> <p>See Table 4 for the complete feature set.</p> <p><b>Note:</b> All necessary mounting hardware, cabling, and shielding ship with the chassis and optional accessory kits.</p>
	<p><b>Intel® Server Board S2600STBR</b></p> <p>iPC S2600STBR  MM# 986246  UPC 00735858406758  EAN 5032037151016  MOQ 1</p> <p><b>Product type</b> Server board only  Building block/spare FRU</p> <p><b>Dimensions (SSI EEB)</b> 12" x 13"  <b>Packaged gross wt.</b> 2.4 kg (5.2 lb)  <b>Un-packaged net wt.</b> 1.9 kg (4.2 lb)</p>	<ul style="list-style-type: none"> <li>• (2) processor sockets compatible with 1<sup>st</sup> and 2<sup>nd</sup> Gen Intel® Xeon® Scalable processors</li> <li>• Intel® C624 chipset</li> <li>• Onboard dual-port RJ45 10 GbE LAN</li> <li>• (4) – onboard PCIe* NVMe* OcuLink connectors</li> <li>• (12) – SATA 6 Gbps ports</li> </ul> <p>See Table 4 for the complete feature set.</p> <p><b>Note:</b> All necessary mounting hardware, cabling, and shielding ship with the chassis and optional accessory kits.</p>
	<p><b>Intel® Server Board S2600STQ</b></p> <p>iPC S2600STQ  MM# 957318  UPC 00735858344661  EAN 5032037105378  MOQ 1</p> <p><b>Product type</b> Server board only  Building block/spare FRU</p> <p><b>Dimensions (SSI EEB)</b> 12" x 13"  <b>Packaged gross wt.</b> 2.4 kg (5.2 lb)  <b>Un-packaged net wt.</b> 1.9 kg (4.2 lb)</p>	<ul style="list-style-type: none"> <li>• (2) processor sockets compatible with 1<sup>st</sup> and 2<sup>nd</sup> Gen Intel® Xeon® Scalable processors</li> <li>• Intel® C628 chipset</li> <li>• Support for Intel® QuickAssist Technology (Intel® QAT)</li> <li>• Onboard dual-port RJ45 10 GbE LAN</li> <li>• (2) – onboard PCIe* NVMe* OcuLink connectors</li> <li>• (12) – SATA 6 Gbps ports</li> </ul> <p>See Table 4 for the complete feature set.</p> <p><b>Note:</b> All necessary mounting hardware, cabling, and shielding ship with the chassis and optional accessory kits.</p>

Intel® Server S2600ST Product Family Configuration Guide

Product Image	Details	Description
	<p><b>Intel® Server Board S2600STQR</b></p> <p><b>iPC</b> S2600STQR  <b>MM#</b> 986307  <b>UPC</b> 00735858406789  <b>EAN</b> 5032037151047  <b>MOQ</b> 1</p> <p><b>Product type</b> Server board only            Building block/spare FRU</p> <p><b>Dimensions (SSI EEB)</b> 12" x 13"  <b>Packaged gross wt.</b> 2.4 kg (5.2 lb)  <b>Un-packaged net wt.</b> 1.9 kg (4.2 lb)</p>	<ul style="list-style-type: none"> <li>• (2) processor sockets compatible with 1<sup>st</sup> and 2<sup>nd</sup> Gen Intel® Xeon® Scalable processors</li> <li>• Intel® C628 chipset</li> <li>• Support for Intel® QuickAssist Technology (Intel® QAT)</li> <li>• Onboard dual-port RJ45 10 GbE LAN</li> <li>• (2) – onboard PCIe* NVMe* OCuLink connectors</li> <li>• (12) – SATA 6 Gbps ports</li> </ul> <p>See Table 4 for the complete feature set.</p> <p><b>Note:</b> All necessary mounting hardware, cabling, and shielding ship with the chassis and optional accessory kits.</p>
	<p><b>Intel® Server Board S2600STB (Base Bulk Pack)</b></p> <p><b>iPC</b> BBS2600STB  <b>MM#</b> 959820  <b>UPC</b> 00735858344678  <b>EAN</b> 5032037105385  <b>MOQ</b> 10</p> <p><b>Product type</b> Server board only            Building block/spare FRU</p> <p><b>Dimensions (SSI EEB)</b> 12" x 13"  <b>Packaged gross wt.</b> 21.8 kg (47.9 lb)  <b>Un-packaged net wt.</b> 19.8 kg (43.6 lb)</p>	<ul style="list-style-type: none"> <li>• (2) processor sockets compatible with 1<sup>st</sup> and 2<sup>nd</sup> Gen Intel® Xeon® Scalable processors</li> <li>• Intel® C624 chipset</li> <li>• Onboard dual-port RJ45 10 GbE LAN</li> <li>• (4) – onboard PCIe* NVMe* OCuLink connectors</li> <li>• (12) – SATA 6 Gbps ports</li> </ul> <p>See Table 4 for the complete feature set.</p> <p><b>Note:</b> All necessary mounting hardware, cabling, and shielding ship with the chassis and optional accessory kits.</p>
	<p><b>Intel® Server Board S2600STBR (Base Bulk Pack)</b></p> <p><b>iPC</b> BBS2600STBR  <b>MM#</b> 986308  <b>UPC</b> 00735858406765  <b>EAN</b> 5032037151023  <b>MOQ</b> 10</p> <p><b>Product type</b> Server board only            Building block/spare FRU</p> <p><b>Dimensions (SSI EEB)</b> 12" x 13"  <b>Packaged gross wt.</b> 21.8 kg (47.9 lb)  <b>Un-packaged net wt.</b> 19.8 kg (43.6 lb)</p>	<ul style="list-style-type: none"> <li>• (2) processor sockets compatible with 1<sup>st</sup> and 2<sup>nd</sup> Gen Intel® Xeon® Scalable processors</li> <li>• Intel® C624 chipset</li> <li>• Onboard dual-port RJ45 10 GbE LAN</li> <li>• (4) – onboard PCIe* NVMe* OCuLink connectors</li> <li>• (12) – SATA 6 Gbps ports</li> </ul> <p>See Table 4 for the complete feature set.</p> <p><b>Note:</b> All necessary mounting hardware, cabling, and shielding ship with the chassis and optional accessory kits.</p>

Intel® Server S2600ST Product Family Configuration Guide

Product Image	Details	Description
	<p><b>Intel® Server Board S2600STQ (Base Bulk Pack)</b></p> <p><b>iPC</b> BBS2600STQ  <b>MM#</b> 959727  <b>UPC</b> 00735858344685  <b>EAN</b> 5032037105392  <b>MOQ</b> 10</p> <p><b>Product type</b> Server board only            Building block/spare FRU</p> <p><b>Dimensions (SSI EEB)</b> 12" x 13"  <b>Packaged gross wt.</b> 21.8 kg (47.9 lb)  <b>Un-packaged net wt.</b> 19.8 kg (43.6 lb)</p>	<ul style="list-style-type: none"> <li>• (2) processor sockets compatible with 1<sup>st</sup> and 2<sup>nd</sup> Gen Intel® Xeon® Scalable processors</li> <li>• Intel® C628 chipset</li> <li>• Support for Intel® QuickAssist Technology (Intel® QAT)</li> <li>• Onboard dual-port RJ45 10 GbE LAN</li> <li>• (2) – onboard PCIe* NVMe* OCuLink connectors</li> <li>• (12) – SATA 6 Gbps ports</li> </ul> <p>See Table 4 for the complete feature set.</p> <p><b>Note:</b> All necessary mounting hardware, cabling, and shielding ship with the chassis and optional accessory kits.</p>

## 2.2 Intel® Server Chassis Product Family Options

The product tables found in this section provide order code information and detailed descriptions for each available Intel server chassis building block option. The lower sections of each table identify:

- **Included** – 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 functionality using the default system feature set. Required items are sold separately.
- **Optional accessories** – Some of the available accessories that can be installed to enhance the basic feature set of the server board/chassis. Optional accessories are sold separately. Additional accessories can be found in Chapter 4.


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**Note:** Items identified with an iPC (Intel Product Code) are orderable building block options, accessories, or spare FRUs. In an effort to provide the complete product bill of materials, the ship along components list in each product table 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 spares or accessories.


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**Table 8. Intel® Server Chassis P4304XXMFEN2 product specifications and configuration requirements**

Intel® Server Chassis P4304XXMFEN2														
	<p><b>Note:</b> This product is discontinued as of July 1, 2018. See PCN 116128-01 for more details.</p>	<table border="0"> <tr> <td><b>Product type</b></td> <td>Chassis only</td> </tr> <tr> <td><b>Chassis form factor</b></td> <td>4U pedestal mount (rack mountable)</td> </tr> <tr> <td><b>Packaged gross wt.</b></td> <td>21.8 kg (48.1 lb)</td> </tr> <tr> <td><b>Un-packaged net wt.</b></td> <td>16.0 kg (35.2 lb)</td> </tr> <tr> <td><b>Chassis dimensions</b></td> <td>612 x 173 x 438 mm (L x W x H)</td> </tr> <tr> <td><b>Package dimensions</b></td> <td>813 x 348 x 577 mm (L x W x H)</td> </tr> </table>	<b>Product type</b>	Chassis only	<b>Chassis form factor</b>	4U pedestal mount (rack mountable)	<b>Packaged gross wt.</b>	21.8 kg (48.1 lb)	<b>Un-packaged net wt.</b>	16.0 kg (35.2 lb)	<b>Chassis dimensions</b>	612 x 173 x 438 mm (L x W x H)	<b>Package dimensions</b>	813 x 348 x 577 mm (L x W x H)
<b>Product type</b>	Chassis only													
<b>Chassis form factor</b>	4U pedestal mount (rack mountable)													
<b>Packaged gross wt.</b>	21.8 kg (48.1 lb)													
<b>Un-packaged net wt.</b>	16.0 kg (35.2 lb)													
<b>Chassis dimensions</b>	612 x 173 x 438 mm (L x W x H)													
<b>Package dimensions</b>	813 x 348 x 577 mm (L x W x H)													
Included	Required Items (sold separately)	Optional Accessories (sold separately)												
<ul style="list-style-type: none"> <li>(1) – 4U pedestal chassis</li> <li>(1) – Standard control panel – iPC <b>FXXFPANEL</b></li> <li>(1) – Fixed 550 W power supply unit – iPC <b>FUP550SNRPS</b></li> <li>(4) – Fixed 3.5"/2.5" drive sleds – iPC <b>FUP4X35NHDK</b></li> <li>(1) – Fixed 120 mm system fan – iPC <b>FUPNHFANCPU</b></li> <li>(1) – Fixed 120 mm system fan – iPC <b>FUPMNHFANPCI</b></li> <li>(1) – Processor/memory aid duct – iPC <b>A4UCWDUCT</b></li> <li>(1) – Fixed bezel – iPC <b>FUPBEZELFIX2</b></li> <li>(1) – Attention document</li> <li>(1) – Dual power connector cable – iPN G22872-00x</li> <li>(1) – Mini-SAS HD to 4-port SATA 7-pin cable – iPC <b>AXXCBL450HD7S</b></li> <li>(1) – Chassis plastic foot – iPN G35111-00x</li> <li>(1) – Set of standoffs for motherboard – iPN G35101-00x</li> <li>(1) – Bumper pad for motherboard – iPN G35112-00x</li> <li>(1) – Set of 5 mm screws for motherboard – iPN G35096</li> </ul>	<ul style="list-style-type: none"> <li>• Intel® Server Board S2600ST (choose one)                             <ul style="list-style-type: none"> <li>○ iPC <b>S2600STB</b></li> <li>○ iPC <b>S2600STQ</b></li> </ul> </li> <li>• Power cord(s)</li> <li>• (1) or (2) Intel® Xeon® processor Scalable family</li> <li>• (1) or (2) heatsinks appropriate for Intel Xeon processor installation</li> <li>• ECC DDR4 memory (RDIMM or LRDIMM)</li> <li>• SATA and/or OCuLink cables</li> </ul>	<ul style="list-style-type: none"> <li>• Hot-swap drive bay kit</li> <li>• Intel® RAID Card</li> <li>• Rack mount conversion kit</li> <li>• Lockable front bezel for hot-swap drive configurations – iPC <b>FUPBEZELHSD2</b></li> <li>• Intel® Remote Management Module 4 Lite for advanced management features – iPC <b>AXXRMM4LITE2</b></li> <li>• Storage drives</li> </ul> <p>See Chapters 4 and 5 for all available accessory options.</p>												

**Table 9. Intel® Server Chassis P4304XXMUXX product specifications and configuration requirements**

<b>Intel® Server Chassis P4304XXMUXX</b>			
	<b>iPC</b> P4304XXMUXX <b>MM#</b> 937011 <b>UPC</b> 00735858289962 <b>EAN</b> 5032037068802 <b>MOQ</b> 1	<b>Product type</b> Chassis only <b>Chassis form factor</b> 4U rack mount <b>Packaged gross wt.</b> 23.8 kg (52.4 lb) <b>Un-packaged net wt.</b> 15.5 kg (34.2 lb) <b>Chassis dimensions</b> 612 x 173 x 438 mm (L x W x H) <b>Package dimensions</b> 813 x 348 x 577 mm (L x W x H)	
<b>Included</b>	<b>Required Items (sold separately)</b>	<b>Optional Accessories (sold separately)</b>	
<ul style="list-style-type: none"> <li>(1) – 4U rack mount chassis</li> <li>(1) – Standard control panel – iPC <b>FXXFPANEL</b></li> <li>(1) – Power distribution board – iPC <b>FUPPDBHC2</b></li> <li>(1) – Power supply bay – iPC <b>FUPCRPSCAGE</b></li> <li>(5) – Redundant/hot-swap 80 mm system fans - iPC <b>FUPMLHSFAN</b></li> <li>(4) – Fixed 3.5"/2.5" drive sleds – iPC <b>FUP4X35NHDK</b></li> <li>(1) – Processor/memory aid duct – iPC <b>A4UCWDUCT</b></li> <li>(1) – Hot swap bezel with lock – iPC <b>FUPBEZELHSD2</b></li> <li>(1) – Fixed EMI cover</li> <li>(1) – Attention document</li> <li>(1) – Dual power connector cable – iPN G22872-00x</li> <li>(1) – Mini-SAS HD to 4-port SATA 7-pin cable – iPC <b>AXXCBL450HD7S</b></li> <li>(1) – Chassis plastic foot – iPN G35111-00x</li> <li>(1) – Set of standoffs for motherboard – iPN G35101-00x</li> <li>(1) – Bumper pad for motherboard – iPN G35112-00x</li> <li>(1) – Set of 5 mm screws for motherboard – iPN G35096</li> </ul>	<ul style="list-style-type: none"> <li>• Intel® Server Board S2600ST (choose one)               <ul style="list-style-type: none"> <li>○ iPC <b>S2600STB(R)</b></li> <li>○ iPC <b>S2600STQ(R)</b></li> </ul> </li> <li>• Power supply – see Section 4.4 for options</li> <li>• Power cord(s)</li> <li>• (1) or (2) 1<sup>st</sup> or 2<sup>nd</sup> Gen Intel® Xeon® processor Scalable family – see Section 1.1.1 for details on processor support</li> <li>• (1) or (2) heatsinks appropriate for Intel Xeon processor installation – see Chapter 5 for options</li> <li>• ECC DDR4 memory (RDIMM or LRDIMM)</li> <li>• SATA and/or OCUlink cables</li> </ul>	<ul style="list-style-type: none"> <li>• Hot-swap drive bay kit – see Section 4.1 for options</li> <li>• Intel® RAID Card – see Section 4.3 for options</li> <li>• OCuLink data cable (depending on the location of the OCuLink connector, a new data cable may be necessary)– see Chapter 3 for details</li> <li>• Intel® Remote Management Module 4 Lite for advanced management features – iPC <b>AXXRMM4LITE2</b></li> <li>• Storage drives</li> </ul> <p>See Chapters 4 and 5 for all available accessory options.</p>	

### 3. SAS/SATA/OCuLink Data Cable Guide

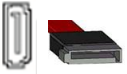
By default, the chassis includes one mini-SAS HD to 4-port SATA 7-pin cable (iPC **AXXCBL450HD7S**) that can be routed from the server board to each of four storage drives.

Mini-SAS HD (SFF-8643) and/or OCUlink data cables (ordered separately) are required when adding one of the following:


- SAS expander module – iPC **RES3TV360**
- SAS expander PCIe\* add-in card – iPC **RES3FV288**
- SAS RAID PCIe add-in card
- Hot-swap backplane accessory option

#### 3.1 Cable Connector Types


**Table 10. Single-port SATA cable connector**

Image	Description
	<p><b>7-pin Single Port SATA</b> Support for up to 6 Gb/sec SATA devices Where used:</p> <ul style="list-style-type: none"> <li>• On the server board</li> <li>• SATA optical drive (CD/DVD)</li> <li>• SATA DOM</li> </ul>

**Table 11. Multiport mini-SAS HD cable connectors**

Image	Description
	<p><b>Mini-SAS (SFF-8643)</b> Support for up to 12 Gb/sec SAS and 6 Gb/sec SATA devices Where used:</p> <ul style="list-style-type: none"> <li>• 12 Gb/sec 4x3.5" hot-swap backplane – iPC <b>FUP4X35S3HSBP</b></li> <li>• 12 Gb/sec 8x2.5" hot-swap backplane – iPC <b>FXX8X25S3HSBP</b></li> <li>• All 12 Gb/sec SAS RAID Controllers</li> <li>• All 12 Gb/sec SAS expander cards</li> </ul>

**Table 12. PCIe\* OCuLink cable connectors**






Image	Description
	<p><b>OCuLink 42-pin connector</b>                      Support for PCIe* NVMe* SFF (2.5") SSDs                      Where used:</p> <ul style="list-style-type: none"> <li>• On the server board – 2 or 4 connectors (depending on the board model)</li> <li>• All backplanes that include support for NVMe SFF SSDs</li> <li>• NVMe switch card</li> <li>• Tri-mode RAID card</li> </ul>

### 3.2 SAS/SATA/OCuLink Cable Kits

Product tables in this section reference specific SAS/SATA and OCuLink cables. Different cable kits are offered to support specific system configurations. The product order code for each cable kit is made up of a string of letters and numbers to identify the type of cable included in the kit.

The following table identifies the different data cable connector types and the identifiers used in the cable kit product codes.

**Table 13. Data cable connector identification**

Connector Image	Cable Code	Description
	HD	Straight SFF-8643 mini SAS HD connector
	7S	Straight 7-pin single-port SATA (support for up to 6 Gb/sec SATA devices)
	7R	Right-angle 7-pin single-port SATA (support for up to 6 Gb/sec SATA devices)
	CV	Straight NVMe* OCuLink SFF-8611 connector
	CR	Right-angle NVMe* OCuLink SFF-8611 connector

### 3.2.1 Cable Kit Product Code Decoder Examples

#### SAS/SATA Data Cable Example – iPC **AXXCBL450HD7S**

- AXXCBL – Identifies an accessory cable kit
- 450 – Identifies the length of the cable in mm
- HD – Identifies that one end of the cable is an SFF-8643 type connector
- 7S – Identifies that one end of the cable is a 7-pin single-port SATA type connector

### 3.2.2 Cable Kit Order Information

**Note:** The minimum order quantity (MOQ) refers to the cable kit. The kit contents may include one or more cables as listed in the product description.

**Table 14. Storage data cable kit description and order information**





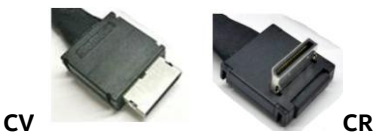



Image	Details	Description
	<b>iPC</b> AXXCBL380HDHD <b>MM#</b> 936427 <b>UPC</b> 00735858284738 <b>EAN</b> 5032037065023 <b>MOQ</b> 1	<b>380 mm</b> long, cable kit (2 cables included), straight SFF8643 to straight SFF8643  Used to connect hot-swap drive bays to mainboard SATA ports
	<b>iPC</b> AXXCBL650HDHD <b>MM#</b> 937129 <b>UPC</b> 00735858284752 <b>EAN</b> 5032037065047 <b>MOQ</b> 1	<b>650 mm</b> long, cable kit (2 cables included), straight SFF8643 to straight SFF8643  Used to connect 12 Gb/s SAS cards (with SFF8643 connectors) to backplanes
	<b>iPC</b> AXXCBL450HD7S <b>MM#</b> 936428 <b>UPC</b> 00735858287388 <b>EAN</b> 5032037067126 <b>MOQ</b> 1	<b>450 mm</b> long, cable kit (2 cables included), straight SFF8643 to 7-pin SATA  Used to connect fixed SATA drives to mainboard SATA ports. Spare for cables shipped with chassis.
	<b>iPC</b> AXXCBL900HD7R <b>MM#</b> 937316 <b>UPC</b> 00735858286640 <b>EAN</b> 5032037066549 <b>MOQ</b> 1	<b>730 mm</b> long, cable kit (2 cables included), straight SFF8643 to right-angle 7-pin SATA  Used to connect fixed SATA drives to mainboard SATA ports. Spare for cables shipped with chassis.

Image	Details	Description
	<b>iPC</b> AXXCBL450CVCR <b>MM#</b> 960254 <b>UPC</b> 00735858347075 <b>EAN</b> 5032037106986 <b>MOQ</b> 1	<b>450 mm</b> long, accessory cable kit (1 cable included), straight OCUlink SFF-8611 connector to right-angle OCUlink SFF-8611 connector  Used to connect switch add-in cards to HSBP PCIe* SSD ports (SSD ports depend on installed location of the switch add-in card).
	<b>iPC</b> AXXCBL625CVCX <b>MM#</b> 960191 <b>UPC</b> 00735858347082 <b>EAN</b> 5032037106993 <b>MOQ</b> 1	<b>625 mm</b> long, 4-port switch accessory cable kit (1 cable included), straight OCUlink SFF-8611 to straight/right-angle OCUlink SFF-8611  Used to connect switch add-in cards to HSBP PCIe* SSD ports (SSD ports depend on installed location of the switch add-in card).
	<b>iPC</b> A2U8PSWCXCXK1 <b>MM#</b> 958268 <b>UPC</b> 00735858346245 <b>EAN</b> 5032037106528 <b>MOQ</b> 1	<b>725 mm</b> long, 8-port switch accessory cable kit (2 cables included), straight OCUlink SFF-8611 to straight/right-angle OCUlink SFF-8611  Used to connect switch add-in cards to HSPB PCIe* SSD ports (SSD ports depend on installed location of the switch add-in card).
	<b>iPC</b> A2U4PRTCXCXK <b>MM#</b> 958264 <b>UPC</b> 00735858346214 <b>EAN</b> 5032037106498 <b>MOQ</b> 1	<b>815 mm</b> long, straight OCUlink SFF-8611 connectors to straight OCUlink SFF-8611 connectors to connect AXXP3RTX16040 4-Port PCIe SSD Retimer AIC to a PCIe SSD capable HSBP SSD ports (1 cable kit required per retimer installed)

### 3.2.3 Cable Recommendations

Each table in the following sections describes the cable connections and lists recommended cable lengths for each supported storage controller option in the specified system. Each recommended cable length for a given connector pair provides enough cable to attach the two devices with the least amount of excess cable, resulting in the cleanest cable routing.

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**Note:** Drive numbering in the system illustrations is for general reference only. Actual drive numbering is dependant on the installed storage controller's configuration and its connection to the backplane. Each installed backplane includes a multi-port data connector for each for drive group.

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### 3.3 Fixed-Mount Drive SAS/SATA Data Cable Guide

One mini-SAS HD cable (iPC **AXXCBL450HD7S**) is included with the Intel® server chassis. Additional cables may be ordered separately as required.

By default, the Intel server chassis has support for four fixed-mount drives. To support eight 2.5"/3.5" fixed drive configurations, an additional set of drive trays (iPC **FUP4X35NHDK**) must be ordered separately.

**Table 15. Data cable guide for fixed-mount drive configurations**

Drive Support	Onboard SATA-Capable Controller to Storage Drive	12 Gb SAS RAID PCIe* Add-In Card to Storage Drive
Fixed 4 x 3.5" Fixed 4 x 2.5"	<b>Onboard SATA → Drive</b> 450 mm HD --- 7S (1) – <b>AXXCBL450HD7S</b> cable (shipped with server chassis)	<b>SAS Add-In Card → Drive</b> 900 mm HD --- 7R (1) – <b>AXXCBL900HD7R</b> cable (order separately)
Fixed 8 x 3.5" Fixed 8 x 2.5"	<b>Onboard SATA → Drive</b> <b>Onboard sSATA → Drive</b> 450 mm HD --- 7S (2) – <b>AXXCBL450HD7S</b> cables (1 cable shipped with server chassis)  Required (order separately): (1) – <b>AXXCBL450HD7S</b> cable (kit includes 2 cables) (2) – <b>FXXSTPWRAP</b> power adapter cable kit (2 drives supported per kit)	<b>SAS Add-In Card → Drive</b> 900 mm HD --- 7R (2) – <b>AXXCBL900HD7R</b> cables  Required (order separately): (2) – <b>AXXCBL900HD7R</b> cables (kit includes 2 cables) (2) – <b>FXXSTPWRAP</b> power adapter cable kit (2 drives supported per kit)

### 3.4 4 x 3.5" Hot-Swap SAS/SATA Data Cable Guide

The 4 x 3.5" hot-swap drive configuration is an upgrade option that requires the following accessory kits (ordered separately):

- Hot-swap drive bay kit – iPC **AUP4X35S3HSDK**
- Mini-SAS HD cable kit – iPC **AXXCBL380HDHD** or **AXXCBL650HDHD**



Figure 24. 4 x 3.5" hot-swap drive configuration (SATA/SAS 0-4)

Table 16. Data cable guide for 4 x 3.5" drive configuration

Drive Support	Onboard SATA Controller to Backplane	12 Gb SAS RAID PCIe* Add-In Card to Backplane
Hot-swap 4 x 3.5"	<b>Onboard SATA → Backplane</b> 380 mm HD --- HD (1) – <b>AXXCBL380HDHD</b> cable (2 shipped with cable kit)	<b>SAS add-in card → Backplane</b> 650 mm HD --- HD (1) – <b>AXXCBL650HDHD</b> cable (2 shipped with cable kit)



### 3.5 8 x 3.5" Hot-Swap SAS/SATA Data Cable Guide

The 8 x 3.5" hot-swap drive configuration is an upgrade option that requires the following accessory kits (ordered separately):

- Hot-swap drive bay kit – iPC **AUP4X35S3HSDK**
- Mini-SAS HD cable kit – iPC **AXXCBL380HDHD** or **AXXCBL650HDHD**



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Figure 24. 8 x 3.5" hot-swap drive configuration (SATA/SAS 0-7)

Table 17. Data cable guide for 8 x 3.5" drive configuration

Drive Support	Onboard SATA Controller to Backplane	12 Gb SAS RAID PCIe* Add-In Card to Backplane
Hot-swap 4 x 3.5"  Cabling the same for top and bottom bay	<b>Onboard SATA → Backplane</b> 380 mm HD --- HD (2) – <b>AXXCBL380HDHD</b> cable (2 shipped with cable kit)	<b>SAS add-in card → Backplane</b> 650 mm HD --- HD (1) – <b>AXXCBL650HDHD</b> cable (2 shipped with cable kit)

### 3.6 8 x 2.5" Hot-Swap SAS/SATA/NVMe\* Data Cable Guide

The 8 x 2.5" hot-swap drive configuration is an upgrade option that requires the following accessory kits (ordered separately):

- Hot-swap combo drive bay kit – iPC **AUP8X25S3NVDK**
- Server board to HSBP OCuLink cable kit – iPC **AXXCBL450CVCR**
- 4-port switch OCuLink cable kit – iPC **AXXCBL625CVCX**

The backside (cable connector side) of the standard 8 x 2.5" combo backplane (iPC **AUP8X25S3NVDK**, included in hot-swap combo drive bay kit **AUP8X25S3NVDK**) includes two 4-port 8643 mini-SAS HD data connectors (ports 0-3 and ports 4-7) for SAS/SATA support, and eight PCIe\* OCuLink connectors for NVMe\* support (one connector for each PCIe NVMe SFF drive). Each OCuLink connector is labeled with a drive ID (0-7) which corresponds to a matching drive interface connector on the front side (drive interface side) of the backplane.

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**Note:** Up to four NVMe drives are supported on Intel® Server Chassis P4304XXMFEN2 and P4304XXMUXX.

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Figure 24. 8 x 2.5" hot-swap drive configuration (SATA/SAS 0-7)

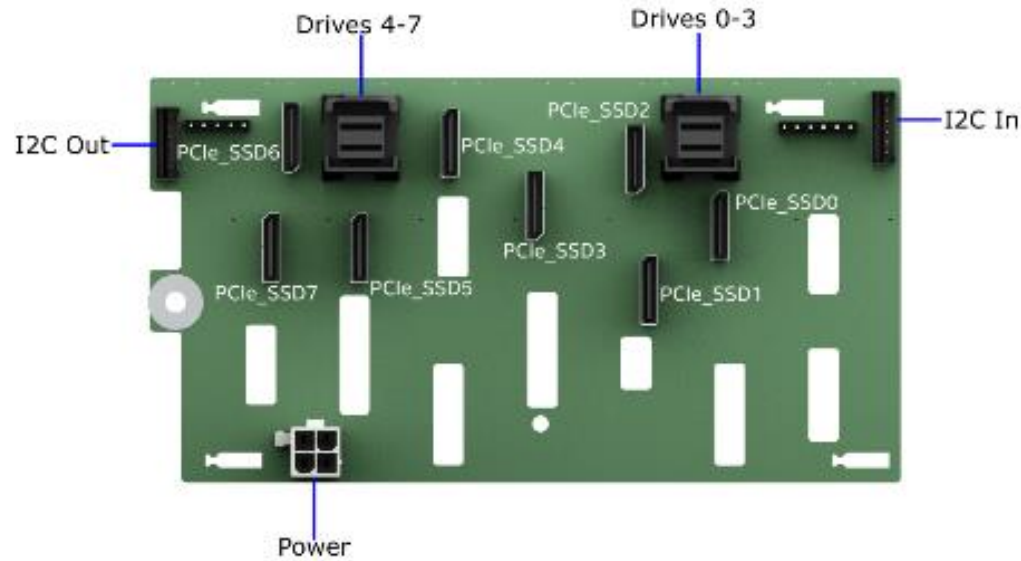


Figure 7. 8 x 2.5" combo backplane (iPC AUP8X25S3NVDK)

Table 18. Data cable guide for 8 x 2.5" combo drive configuration

Drive Support	Onboard SATA Controller to Backplane	12 Gb SAS RAID PCIe* Add-In Card to Backplane	Onboard SAS/SATA/PCIe* OCuLink to Backplane	PCIe* NVMe* Add-In Card to Backplane OCuLink
Hot-swap 8 x 2.5" combo SAS/SATA/PCIe* SSD SFF (NVMe*) 12 Gb SAS capable	<b>Onboard SATA → Backplane</b> 380 mm HD --- HD (2) – <b>AXXCBL380HDHD</b> cable (2 shipped with cable kit)	<b>SAS Add-In Card → Backplane</b> 650 mm HD --- HD (1) – <b>AXXCBL650HDHD</b> cable (2 shipped with cable kit)	<b>Onboard PCIe SSD 1 → Backplane 0</b> <b>Onboard PCIe SSD 2 → Backplane 1</b> <b>Onboard PCIe SSD 3 → Backplane 2</b> <b>Onboard PCIe SSD 4 → Backplane 3</b> 450 mm CV --- CR (1) – <b>AXXCBL450CVCR</b> cable  <b>Onboard SATA → Backplane 4-7</b> 380 mm HD --- HD (1) – <b>AXXCBL380HDHD</b> cable	<b>Add-in card → Backplane 0-3</b> 625 mm CV --- CX (1) – <b>AXXCBL625CVCX</b> cable

### 3.7 8 x 2.5" Dual-Port Hot-Swap SAS Data Cable Guide

The 8 x 2.5" dual-port hot-swap drive configuration is an upgrade option that requires the following accessory kits (ordered separately):

- Hot-swap drive bay kit – iPC **AUP8X25S3DPDK**
- Mini-SAS HD cable kit – iPC **AXXCBL380HDHD** or **AXXCBL650HDHD**



Figure 24. 8 x 2.5" hot-swap drive configuration (SATA/SAS 0-7)

Table 19. Data cable guide for 8 x 2.5" drive configuration

Drive Support	Onboard SATA Controller to Backplane	12 Gb SAS RAID PCIe* Add-In Card to Backplane
Hot-swap 8 x 2.5"	N/A	<b>SAS add-in card → Backplane</b> 650 mm HD --- HD (1) – <b>AXXCBL650HDHD</b> cable (2 shipped with cable kit)

### 3.8 16 x 2.5" Hot-Swap SAS/SATA Data Cable Guide

The 16 x 2.5" hot-swap drive configuration is an upgrade option that requires the following accessory kits (ordered separately):

- Two hot-swap drive bay kits (it is suggested that both be the same type)
  - Dual-port hot-swap drive bay kit – iPC **AUP8X25S3DPDK**
  - Combo hot-swap drive bay kit – iPC **AUP8X25S3NVDK**
- Mini-SAS HD cable kit – iPC **AXXCBL380HDHD** or **AXXCBL650HDHD**

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**Note:** NVMe\* drives are not supported in 16 x 2.5" configurations on Intel® Server Chassis P4304XXMFEN2 and P4304XXMUXX.

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**Figure 24. 16 x 2.5" hot-swap drive configuration (SATA/SAS 0-15)**

### 3.8.1 16 x 2.5" Dual-Port Hot-Swap SAS Cable Guide

**Note:** For the 16 x 2.5" dual-port hot-swap drive configuration, a second processor must be installed if more than two PCIe\* RAID add-in cards are installed on the server board.

**Table 20. Data cable guide for 16 x 2.5" drive configuration**

Drive Support	Onboard SATA Controller to Backplane	12 Gb SAS RAID PCIe* Add-In Card to Backplane
Hot-swap 8 x 2.5"  Cabling options are the same for top and bottom bay	N/A	<b>SAS add-in card → Backplane</b> 650 mm HD --- HD (1) – <b>AXXCBL650HDHD</b> cable (2 shipped with cable kit)

### 3.8.2 16 x 2.5" Combo Hot-Swap SAS/SATA Data Cable Guide (without SAS expander)

**Table 21. Data cable guide for 16 x 2.5" combo hot-swap drive (no SAS expander) configuration**



Drive Support	Onboard SATA Controller to Backplane + 12 Gb SAS RAID PCIe* Add-In Card to Backplate	12 Gb SAS RAID PCIe* Add-In Card to Backplane
Hot-swap 8 x 2.5" combo SAS/SATA/PCIe* SSD SFF (NVMe*)  Cabling options are the same for top and bottom bay	<b>Onboard SATA → Backplane</b> 380 mm HD --- HD (2) – <b>AXXCBL380HDHD</b> cable (2 shipped with cable kit)  <b>SAS add-in card → Backplane</b> 650 mm HD --- HD (2) – <b>AXXCBL650HDHD</b> cable (2 shipped with cable kit)	<b>SAS add-in card → Backplane</b> 650 mm HD --- HD (4) – <b>AXXCBL650HDHD</b> cable (2 shipped with cable kit)

### 3.8.3 16 x 2.5" Hot-Swap SAS/SATA Data Cable Guide (with SAS expander)

Drive configurations consisting of more than eight drives may require the addition of an SAS expander card. In a 16 x 2.5" system configuration, the SAS expander **RES3FV288** must be installed in any available PCIe add-in slot or, when using SAS expander **RES3TV360**, must be installed in the chassis between the system fans and the backplane of the storage drive bays. Table 22 lists the features of both expanders.

**Note:** The onboard SATA ports are not compatible with SAS expander cards. The onboard SATA ports can be cabled directly to a specified backplane or drive only.

**Table 22. SAS expander options**

Image	Details	Description
	<p><b>SAS 3.0 12 Gb/s Expander</b></p> <p><b>iPC</b> RES3FV288  <b>MM#</b> 932895  <b>UPC</b> 00735858287548  <b>EAN</b> 5032037067287  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<ul style="list-style-type: none"> <li>6Gbps data aggregation for 12Gbps data transfer with 6Gb/s devices</li> <li>Low Profile MD2 PCIe* add-in card form factor</li> <li>28 internal ports and 8 external ports</li> <li>Redundant dual-port capable for HA and high performance systems</li> <li>Power from PCIe x1</li> <li>Mini-SAS HD 8643 connectors</li> </ul> <p><b>Kit includes:</b> (1) SAS expander card; (2) HD-HD 250 mm expander to RAID card cables; PCI brackets for low-profile and full-height</p> <p><b>Required (sold separately):</b> HD-HD expander to backplane cables (see Table 23)</p>
	<p><b>SAS 2.0 12 Gb/s Expander</b></p> <p><b>iPC</b> RES3TV360  <b>MM#</b> 932894  <b>UPC</b> 00735858287364  <b>EAN</b> 5032037067102  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<ul style="list-style-type: none"> <li>36-port, 12 Gbps capable expander card</li> </ul> <p><b>Kit includes:</b> (1) SAS expander card; (6) cables to connect to 24 ports on nearby drive backplane</p> <p><b>Required (sold separately):</b> HD-HD expander to RAID card cables (see Table 23)</p>

**Table 23. Data cable guide for 16 x 2.5" hot-swap drive (with SAS expander) configuration**

Drive Support	Onboard SATA Controller to Backplane	12 Gb SAS RAID PCIe* Add-In Card to Backplane (with SAS Expander RES3FV288)	12 Gb SAS RAID PCIe* Add-In Card to Backplane (with SAS Expander RES3TV360)
Hot-swap 8 x 2.5" combo SAS/SATA/PCIe* SSD SFF (NVMe*)  Cabling options are the same for top and bottom bay	N/A	<ul style="list-style-type: none"> <li>Use cables in expander kit to attach PCIe SAS card to expander card</li> <li>To connect the expander card to the backplane, use two <b>AXXCBL650HDHD</b> cables per drive bay (ordered separately; cable kit includes two cables)</li> </ul>	<ul style="list-style-type: none"> <li>Use cables in expander kit to attach expander card to backplane</li> <li>To connect the PCIe SAS card to the expander card, use cable <b>AXXCBL380HDHD</b> (ordered separately; cable kit includes two cables)</li> </ul>

## 4. Accessory Options

The following sections identify available accessory kits supported within the Intel® Server S2600ST product family.

### 4.1 SAS/SATA/NVMe\* Backplanes and Drive Bay Kits

**Table 24. SAS/SATA/NVMe\* backplane and drive bay kit options**

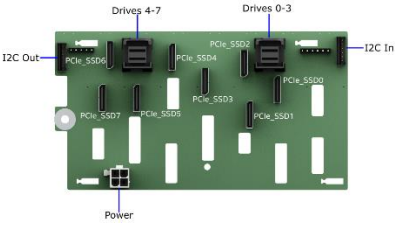
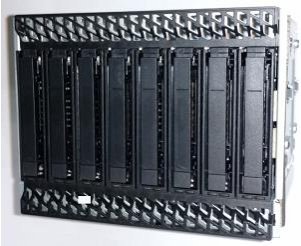
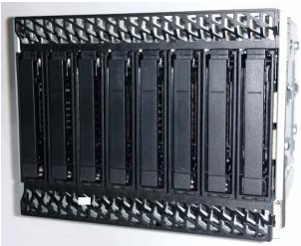

Image	Details	Description
	<p><b>8 x 2.5" Hot-Swap PCIe* NVMe* SFF Combo Backplane</b></p> <p><b>iPC</b> F2U8X25S3PHS  <b>MM#</b> 955870  <b>UPC</b> 00735858344913  <b>EAN</b> 5032037105620  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p>Combination hot-swap backplane board supporting SAS, SATA, and PCIe NVMe SFF storage drives. For use with Intel® Server Chassis P4000 product family.</p> <p><b>Includes:</b> (1) backplane board</p>
	<p><b>8 x 2.5" Hot-Swap PCIe* NVMe* SFF Combo Drive Bay Kit</b></p> <p><b>iPC</b> AUP8X25S3NVDK  <b>MM#</b> 953393  <b>UPC</b> 00735858346641  <b>EAN</b> 5032037106702  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p><b>Includes:</b></p> <ul style="list-style-type: none"> <li>(1) – drive bay</li> <li>(1) – hot-swap combo backplane – iPC <b>F2U8X25S3PHS</b></li> <li>(8) – 2.5" hot-swap tool-less drive carriers – iPC <b>FXX25HSCAR3</b></li> <li>(3) – I2C cables</li> <li>(1) – power adapter cable accessory</li> <li>(1) – EMI cover</li> </ul> <p><b>Note:</b> Limited feature substitute available (iPC <b>FUP8X25S3HSDK</b>). See Table 34 for details.</p>
	<p><b>8 x 2.5" Dual-Port Hot-Swap SAS Drive Bay Kit</b></p> <p><b>iPC</b> AUP8X25S3DPDK  <b>MM#</b> 953392  <b>UPC</b> 00735858345200  <b>EAN</b> 5032037105781  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p><b>Includes:</b></p> <ul style="list-style-type: none"> <li>(1) – drive bay</li> <li>(1) – dual-port hot-swap backplane</li> <li>(8) – 2.5" hot-swap tool-less drive carriers – iPC <b>FXX25HSCAR3</b></li> <li>(2) – I2C cables</li> <li>(1) – power adapter cable accessory</li> <li>(1) – EMI cover</li> </ul>




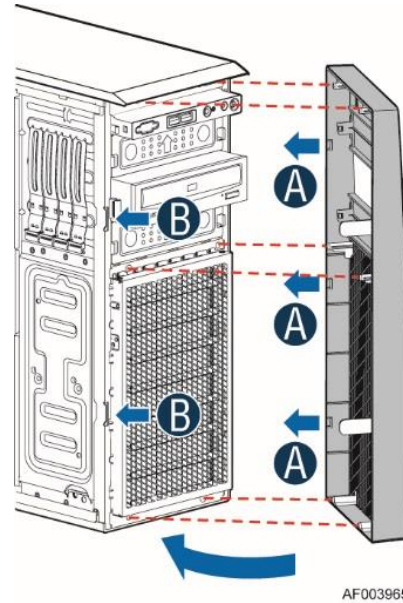
Image	Details	Description
	<p><b>4 x 3.5" Hot-Swap Drive Bay Kit</b></p> <p><b>iPC</b> AUP4X35S3HSDK  <b>MM#</b> 959879  <b>UPC</b> 00735858348614  <b>EAN</b> 5032037107631  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p><b>Includes:</b></p> <ul style="list-style-type: none"> <li>(1) – drive bay</li> <li>(1) – hot-swap backplane</li> <li>(4) – 3.5" hot-swap tool-less drive carriers – iPC <b>FXX35HSCAR2</b></li> <li>(2) – I2C cables</li> <li>(1) – EMI cover</li> </ul> <p><b>Note:</b> Limited feature substitute available (iPC <b>FUP4X35S3HSDK</b>). See Table 34 for details.</p>

## 4.2 Locking Front Bezel Accessory

The front bezel is made of black molded plastic and uses a snap-on design. When installed, it allows for maximum airflow to maintain system cooling requirements. The front bezel includes a keyed locking mechanism which can be used to prevent unauthorized access to installed storage devices and front I/O ports.

**Table 25. Front bezel accessory option**

Image	Details	Description
	<p><b>Locking Front Bezel</b></p> <p><b>iPC</b> FUPBEZELHSD2  <b>MM#</b> 925749  <b>UPC</b> 00735858254656  <b>EAN</b> 5032037035880  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit Spare FRU</p>	<p>Spare locking front bezel for Intel® Chassis P4304XXMUXX</p> <p><b>Includes:</b> (1) bezel with door; lock and keys</p>




**Figure 8. Installing the front bezel on the chassis**





For complete installation information, refer to *Intel® Server Chassis P4304XXMFEN2/P4304XXMUXX Product Family Service Guide*.

### 4.3 Intel® RAID Add-In Cards, Expanders, and Accessories





**Table 26. Intel® RAID controller add-in cards – SAS 3.0 (12 Gb/s)**

Image	Details	Description
	<p><b>Intel® RAID Controller RS3DC080</b></p> <p><b>iPC</b> RS3DC080  <b>MM#</b> 934643  <b>UPC</b> 00735858265355  <b>EAN</b> 5032037107174  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<p>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 <b>AXXRMFBU4</b>              Supports the following Intel® RAID Accessory Options:</p> <ul style="list-style-type: none"> <li>• Intel® RAID High Availability Activation Key – iPC <b>AXXRPFKHA2</b></li> <li>• Intel® RAID SSD Cache with Fast Path I/O – iPC <b>AXXRPFKSSD2</b></li> <li>• Intel® RAID Drive Encryption Management – iPC <b>AXXRPFKDE2</b></li> <li>• Intel® RAID Rapid Recovery Snapshot – iPC <b>AXXRPFKSNH2</b></li> </ul> <p>SAS data cables not included and must be purchased separately.</p>


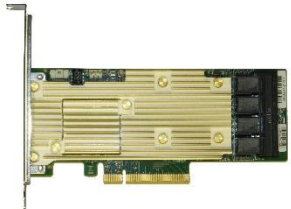


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Image	Details	Description
	<p><b>Intel® RAID Controller RS3DC040</b></p> <p><b>iPC</b> RS3DC040  <b>MM#</b> 934644  <b>UPC</b> 00735858265362  <b>EAN</b> 5032037107167  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<p>Low Profile, half 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 <b>AXXRMFBU4</b>            Supports the following Intel® RAID Accessory Options:</p> <ul style="list-style-type: none"> <li>• Intel® RAID SSD Cache with Fast Path I/O – iPC <b>AXXRPFKSSD2</b></li> <li>• Intel® RAID Drive Encryption Management – iPC <b>AXXRPFKDE2</b></li> <li>• Intel® RAID Rapid Recovery Snapshot – iPC <b>AXXRPFKNSH2</b></li> </ul> <p>SAS data cables not included and must be purchased separately.</p>
	<p><b>Intel® RAID Controller RS3SC008</b></p> <p><b>iPC</b> RS3SC008  <b>MM#</b> 928223  <b>UPC</b> 00735858266956  <b>EAN</b> 5032037068567  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<p>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 <b>AXXRMFBU4</b>            Supports the following Intel® RAID Accessory Options:</p> <ul style="list-style-type: none"> <li>• Intel® RAID High Availability Activation Key – iPC <b>AXXRPFKHA2</b></li> <li>• Intel® RAID SSD Cache with Fast Path I/O – iPC <b>AXXRPFKSSD2</b></li> <li>• Intel® RAID Drive Encryption Management – iPC <b>AXXRPFKDE2</b></li> <li>• Intel® RAID Rapid Recovery Snapshot – iPC <b>AXXRPFKNSH2</b></li> </ul> <p>SAS data cables not included and must be purchased separately.</p>
	<p><b>Intel® RAID Controller RS3GC008</b></p> <p><b>iPC</b> RS3GC008  <b>MM#</b> 928220  <b>UPC</b> 00735858267175  <b>EAN</b> 5032037053839  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<p>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)</p> <p>SAS data cables not included and must be purchased separately.</p>
	<p><b>Intel® RAID Controller RS3UC080</b></p> <p><b>iPC</b> RS3UC080  <b>MM#</b> 928218  <b>UPC</b> 00735858267649  <b>EAN</b> 5032037053938  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<p>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</p> <p>SAS data cables not included and must be purchased separately.</p>



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Image	Details	Description
	<p><b>Intel® RAID Controller RS3WC080</b></p> <p><b>iPC</b> RS3WC080  <b>MM#</b> 928215  <b>UPC</b> 00735858267656  <b>EAN</b> 5032037053945  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<p>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 &amp; Hybrid 5, 50</p> <p>SAS data cables not included and must be purchased separately.</p>
	<p><b>Intel® RAID Controller RS3UC080J</b></p> <p><b>iPC</b> RS3UC080J  <b>MM#</b> 952709  <b>UPC</b> 00735858323840  <b>EAN</b> 5032037090971  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<p>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 (SAS/SATA Connectivity)</p> <p>SAS data cables not included and must be purchased separately.</p>
	<p><b>Intel® RAID Controller RSP3QD160J</b></p> <p><b>iPC</b> RSP3QD160J  <b>MM#</b> 954491  <b>UPC</b> 00735858329101  <b>EAN</b> 5032037095228  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<p>Low Profile, half length, (MD2 Compliant) PCIe* add-in card                      Entry level Tri-Mode SAS/SATA/NVMe adapter.                      16 internal SAS / SATA ports / 4 NVMe                      LSI* SAS3416 IOC                      RAID Levels – JBOD (SAS/SATA/NVMe Connectivity)</p> <p>SAS and NVMe data cables not included and must be purchased separately.</p>
	<p><b>Intel® RAID Controller RSP3GD016J</b></p> <p><b>iPC</b> RSP3GD016J  <b>MM#</b> 954492  <b>UPC</b> 00735858329156  <b>EAN</b> 5032037095273  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<p>Low Profile, half length, (MD2 Compliant) PCIe* add-in card                      Entry level Tri-Mode SAS/SATA/NVMe adapter.                      16 external SAS / SATA ports / 4 NVMe                      LSI* SAS3416 IOC                      RAID Levels – JBOD (SAS/SATA/NVMe Connectivity)</p> <p>SAS and NVMe data cables not included and must be purchased separately.</p>

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Image	Details	Description
	<p><b>Intel® RAID Controller RSP3WD080E</b></p> <p><b>iPC</b> RSP3WD080E  <b>MM#</b> 954495  <b>UPC</b> 00735858329170  <b>EAN</b> 5032037095297  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<p>Low Profile, half length, (MD2 Compliant) PCIe* add-in card                      Entry level Tri-Mode RAID Controller                      8 internal SAS/SATA ports/2 NVMe                      Avago* SAS3408 IOC                      RAID Levels – 0/1/10/5 and JBOD</p> <p>SAS and NVMe data cables not included and must be purchased separately.</p>
	<p><b>Intel® RAID Controller RSP3TD160F</b></p> <p><b>iPC</b> RSP3TD160F  <b>MM#</b> 954493  <b>UPC</b> 00735858329163  <b>EAN</b> 5032037095280  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<p>Low Profile, half length, (MD2 Compliant) PCIe* add-in card                      Full Featured Tri-Mode RAID Controller                      16 internal SAS / SATA ports / 4 NVMe                      Avago* SAS3516 ROC                      RAID Levels – 0/1/10/5/6/50/60 and JBOD                      Supports Maintenance Free Backup Unit – iPC <b>AXXRMFBU7</b></p> <p>SAS and NVMe data cables not included and must be purchased separately.</p>
	<p><b>Intel® RAID Controller RSP3DD080F</b></p> <p><b>iPC</b> RSP3DD080F  <b>MM#</b> 954496  <b>UPC</b> 00735858329187  <b>EAN</b> 5032037095303  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<p>Low Profile, half length, (MD2 Compliant) PCIe* add-in card                      Full Featured Tri-Mode RAID Controller                      8 internal SAS / SATA ports / 2 NVMe                      Avago* SAS3508 ROC                      RAID Levels – 0/1/10/5/6/50/60 and JBOD                      Supports Maintenance Free Backup Unit – iPC <b>AXXRMFBU7</b>                      Supports the following Intel® RAID Accessory Options:</p> <ul style="list-style-type: none"> <li>• Intel® RAID Drive Encryption Management – iPC <b>AXXRPFKDE2</b></li> </ul> <p>SAS and NVMe data cables not included and must be purchased separately.</p>
	<p><b>Intel® RAID Controller RSP3MD088F</b></p> <p><b>iPC</b> RSP3MD088F  <b>MM#</b> 954551  <b>UPC</b> 00735858329194  <b>EAN</b> 5032037095310  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<p>Low Profile, half length, (MD2 Compliant) PCIe* add-in card                      Full Featured Tri-Mode RAID Controller                      8 internal + 8 external SAS / SATA ports / 4 NVMe                      Avago* SAS3516 ROC                      RAID Levels – 0/1/10/5/6/50/60 and JBOD                      Supports Maintenance Free Backup Unit – iPC <b>AXXRMFBU7</b>                      Supports the following Intel® RAID Accessory Options:</p> <ul style="list-style-type: none"> <li>• Intel® RAID Drive Encryption Management – iPC <b>AXXRPFKDE2</b></li> </ul> <p>SAS and NVMe data cables not included and must be purchased separately.</p>

**Table 27. SAS expander options**

Image	Details	Description
	<p><b>SAS 3.0 12 Gb/s Expander</b></p> <p><b>iPC</b> RES3FV288  <b>MM#</b> 932895  <b>UPC</b> 00735858287548  <b>EAN</b> 5032037067287  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<ul style="list-style-type: none"> <li>• 6Gbps data aggregation for 12Gbps data transfer with 6Gb/s devices</li> <li>• Low Profile MD2 PCIe* add-in card form factor</li> <li>• 28 internal ports and 8 external ports</li> <li>• Redundant dual-port capable for HA and high performance systems</li> <li>• Power from PCIe x1</li> <li>• Mini-SAS HD 8643 connectors</li> </ul> <p><b>Kit includes:</b> (1) SAS expander card; (2) HD-HD 250 mm expander to RAID card cables; PCI brackets for low-profile and full-height  <b>Required (sold separately):</b> HD-HD expander to backplane cables (see Table 23)</p>
	<p><b>SAS 2.0 12 Gb/s Expander</b></p> <p><b>iPC</b> RES3TV360  <b>MM#</b> 932894  <b>UPC</b> 00735858287364  <b>EAN</b> 5032037067102  <b>MOQ</b> 5</p> <p><b>Product type</b> Accessory kit</p>	<ul style="list-style-type: none"> <li>• 36-port, 12 Gbps capable expander card</li> </ul> <p><b>Kit includes:</b> (1) SAS expander card; (6) cables to connect to 24 ports on nearby drive backplane  <b>Required (sold separately):</b> HD-HD expander to RAID card cables (see Table 23)</p>

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**Note:** The onboard SATA ports are not compatible with SAS expander cards. The onboard SATA ports can be cabled directly to a specified backplane or drive only.

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**Table 28. Intel® RAID accessory options**








Image	Details	Description
	<p><b>Intel® Embedded Server RAID Technology 2 SATA Software RAID Activation Key</b></p> <p>iPC RKSATA4R5  MM# 916346  UPC 00735858238861  EAN 5032037033640  MOQ 5</p> <p><b>Product type</b> Accessory kit</p>	Used to enable onboard SATA controllers to support Intel® Embedded Server RAID Technology 2 software RAID 5
	<p><b>Intel® Virtual RAID on CPU (Intel® VROC) – Intel® SSD Only Key</b></p> <p>iPC VROCISSDMOD  MM# 956822  UPC 00735858337274  EAN 5032037100021  MOQ 5</p> <p><b>Product type</b> Accessory kit</p>	Activation key to support RAID (0, 1, 5, 10) functionality only on NVMe* SSDs from Intel
	<p><b>Intel® Virtual RAID on CPU (Intel® VROC) - Standard Model Key</b></p> <p>iPC VROCSTANMOD  MM# 951605  UPC 00735858337243  EAN 5032037100007  MOQ 5</p> <p><b>Product type</b> Accessory kit</p>	Activation key to support non-Intel NVMe* SSDs and enable RAID (0, 1, 10) functionality
	<p><b>Intel® Virtual RAID on CPU (Intel® VROC) - Premium Model Key</b></p> <p>iPC VROCPREMMOD  MM# 951606  UPC 00735858337267  EAN 5032037100014  MOQ 5</p> <p><b>Product type</b> Accessory kit</p>	Activation key to support non-Intel NVMe* SSDs and enable Intel® VROC Premium, RAID (0, 1, 5, 10) with RAID write hole closure

Image	Details	Description
	<p><b>Intel® RAID Maintenance Free Backup Unit AXXRMFBU7</b></p> <p>iPC                    AXXRMFBU7  MM#                    957677  UPC                    00735858336192  EAN                    5032037099790  MOQ                    5</p> <p><b>Product type</b>    Accessory kit</p>	<p>A super-capacitor module designed to protect data in dynamic memory during a power failure or system crash event. The AXXRMFBU7 is used with the full-featured tri-mode RAID modules and controllers.</p> <p>Compatible with:</p> <ul style="list-style-type: none"> <li>• Intel® RAID Controller RSP3TD160F</li> <li>• Intel® RAID Controller RSP3DD080F</li> <li>• Intel® RAID Controller RSP3MD088F</li> </ul>
	<p><b>Intel® RAID Maintenance Free Backup Unit AXXRMFBU6</b></p> <p>iPC                    AXXRMFBU6  MM#                    945975  UPC                    00735858306768  EAN                    5032037080163  MOQ                    5</p> <p><b>Product type</b>    Accessory kit</p>	<p>A super-capacitor module designed to protect data in dynamic memory during a power failure or system crash event. The AXXRMFBU6 is used with the full-featured RAID controllers.</p> <p>Compatible with:</p> <ul style="list-style-type: none"> <li>• Intel® Integrated RAID Module RMS3AC160</li> </ul>
	<p><b>Intel® RAID Maintenance Free Backup Unit AXXRMFBU4</b></p> <p>iPC                    AXXRMFBU4  MM#                    937318  UPC                    00735858273787  EAN                    5032037058544  MOQ                    5</p> <p><b>Product type</b>    Accessory kit</p>	<p>A super-capacitor module and flash memory card designed to help protect data in dynamic memory during a power failure or system crash event. The AXXRMFBU4 kit is used with the 12 Gb/s Intel® RAID Controller PCIe* Add-in Cards.</p> <p>Compatible with:</p> <ul style="list-style-type: none"> <li>• Intel® RAID Controller RS3DC080</li> <li>• Intel® RAID Controller RS3DC040</li> <li>• Intel® RAID Controller RS3SC008</li> <li>• Intel® RAID Controller RS3MC044</li> </ul>



## 4.4 Power Supply Modules and Power Cords

**Table 29. Power supply modules and power cords**



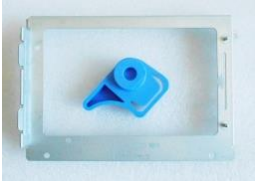




Image	Details	Description
	<p><b>750 W Common Redundant Power Supply</b></p> <p><b>iPC</b> FXX750PCRPS  <b>MM#</b> 915604  <b>UPC</b> 00735858234979  <b>EAN</b> 5032037030601  <b>MOQ</b> 1</p> <p><b>Product type</b> Building block/spare FRU</p>	<p>750 W AC common redundant power supply with 80 PLUS* Platinum efficiency. Power cord sold separately.</p>
	<p><b>1600 W AC Common Redundant Power Supply</b></p> <p><b>iPC</b> FXX1600PCRPS  <b>MM#</b> 915606  <b>UPC</b> 00735858243650  <b>EAN</b> 5032037038294  <b>MOQ</b> 1</p> <p><b>Product type</b> Building block/spare FRU</p>	<p>1600 W AC common redundant power supply with 80 PLUS* Platinum efficiency. Power cord sold separately.</p>
	<p><b>Non-Redundant Power Supply Adapter Bracket</b></p> <p><b>iPC</b> FUPNRPSADP  <b>MM#</b> 912769  <b>UPC</b> 00735858219471  <b>EAN</b> 5032037016278  <b>MOQ</b> 1</p> <p><b>Product type</b> Building block/spare FRU</p>	<p>Power supply adapter bracket kit for Intel® Server Chassis P4000 product family.</p> <p><b>Includes:</b> Bracket, screws, and locker</p>
	<p><b>Redundant Power Supply Cage</b></p> <p><b>iPC</b> FUPCRPSCAGE  <b>MM#</b> 915607  <b>UPC</b> 00735858235891  <b>EAN</b> 5032037030656  <b>MOQ</b> 1</p> <p><b>Product type</b> Building block/spare FRU</p>	<p>Common pedestal common redundant power supply bay assembly for Intel® Server Chassis P4304XXMUXX.</p> <p><b>Includes:</b> Bay, adapter bracket, screws, supporting bulkhead, and (1) blank filler</p>

Image	Details	Description
	<p><b>Spare Power Distribution Board</b></p> <p><b>iPC</b> FUPPDBHC2  <b>MM#</b> 936420  <b>UPC</b> 00735858290036  <b>EAN</b> 5032037068871  <b>MOQ</b> 1</p> <p><b>Product type</b> Building block/spare FRU</p>	<p>Spare power distribution board (high current) for Intel® Server Chassis P4304XXMUXX. Used with <b>FXX750PCRPS</b> or <b>FXX1600PCRPS</b> power supplies.</p>
	<p><b>1500 mm (59 in) North America power cable</b></p> <p><b>iPC</b> FPWRCABLENA  <b>MM#</b> 879287  <b>UPC</b> 00735858181129  <b>EAN</b> 5032037015738  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p>1500 mm (59 in) North America power cable</p>
	<p><b>Power Adapter</b></p> <p><b>iPC</b> FXXSSIPWR  <b>MM#</b> 936430  <b>UPC</b> 00735858289702  <b>EAN</b> 5032037068642  <b>MOQ</b> 10</p> <p><b>Product type</b> Accessory kit</p>	<p>Power adapter/dongle for chassis with limited space access for board power connectors</p> <p><b>Note:</b> Not required for Intel® Server Chassis.</p>



## 4.5 Rack Options

The Intel® Server Chassis P4304XXMFEN2/P4304XXMUXX can be converted to a rack system with the rack bezel kit and rack rail option.

For installation information, refer to *Intel® Server Chassis P3404XXMFEN2/P4304XXMUXX Product Family System Integration and Service Guide*.

### 4.5.1 Rack Bezel Accessories




**Table 30. Rack bezel accessory options**

Image	Details	Description
	<p><b>Rack Bezel Frame</b></p> <p><b>iPC</b> AUPBEZEL4UF  <b>MM#</b> 915636  <b>UPC</b> 00735858235976  <b>EAN</b> 5032037030731  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p>Rack bezel kit for converting Intel® Server Chassis P4000 family pedestal chassis to rack chassis.</p> <p><b>Includes:</b>  (1) – Bezel frame  (2) – Rack handles</p>
	<p><b>Rack Bezel Door</b></p> <p><b>iPC</b> AUPBEZEL4UD  <b>MM#</b> 915637  <b>UPC</b> 00735858235983  <b>EAN</b> 5032037030748  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p>Rack bezel accessory for Intel® Server Chassis P4000 family in rack configuration. Security door only. Requires rack bezel frame (iPC <b>AUPBEZEL4UF</b>) to be installed.</p> <p><b>Includes:</b> Snap-in door with lock and key</p>

## 4.5.2 Rack Mount Kits


**Caution:** Exceeding the rail kit's specified maximum weight limit or misalignment of the server in the rack may result in failure of the rack rails, resulting in damage to the system or personal injury. Using two people or the use of a mechanical assist tool to install and align the server into the rack is highly recommended.

**Table 31. Rack mount kits**

Image	Details	Description
	<p><b>Enhanced Value Rail Kit</b></p> <p><b>iPC</b> AXXELVRAIL  <b>MM#</b> 920970  <b>UPC</b> 00735858244367  <b>EAN</b> 5032037038980  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<ul style="list-style-type: none"> <li>• Works for all 438 mm wide Intel® Chassis 1U, 2U, 4U</li> <li>• Adjustment within 609.6 mm ~ 765 mm to fit difference depth rack</li> <li>• 424.2 mm maximum travel length</li> <li>• 2/3 extension from rack</li> <li>• 130 lbs. (59 Kgs) max support weight</li> <li>• Tool-less chassis attach</li> <li>• Tools required to attach to rails to rack</li> </ul> <p><b>Note:</b> No cable management arm support.</p>
	<p><b>Advanced Rail Kit</b></p> <p><b>iPC</b> AXX3U5UPRAIL  <b>MM#</b> 915634  <b>UPC</b> 735858236119  <b>EAN</b> 5032037030892  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p>Advanced rail kit for Intel® Server Chassis P4000 product family. Used when converting pedestal chassis to 4U rack chassis and full-extension rails are needed.</p>
	<p><b>Cable Management Arm (CMA)</b></p> <p><b>iPC</b> AXX3U5UCMA  <b>MM#</b> 915635  <b>UPC</b> 735858236126  <b>EAN</b> 5032037030908  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p>Compatible with Advanced Rail Kit <b>AXX3U5UPRAIL</b> option only</p>


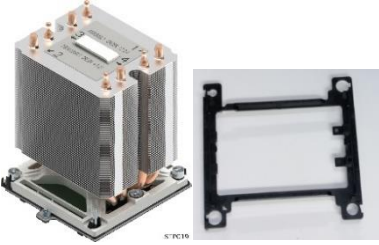

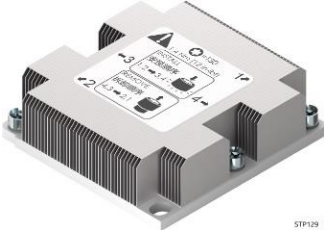
## 4.6 LAN Riser Card

**Table 32. LAN riser card option**

Image	Details	Description
	<p><b>LAN Riser Cable Kit</b></p> <p><b>iPC</b>            AXXSTSFPKIT  <b>MM#</b>            960190  <b>UPC</b>            00735858346337  <b>EAN</b>            5032037106610  <b>MOQ</b>            5</p> <p><b>Product type</b>    Accessory kit</p>	<ul style="list-style-type: none"> <li>• Low-profile, half-length PCIe* add-in card</li> <li>• Supports (2) SFP+ connectors</li> </ul> <p><b>Includes:</b></p> <ul style="list-style-type: none"> <li>(1) – LAN riser card with full-height bracket pre-installed</li> <li>(1) – 30-pin front panel cable</li> <li>(1) – Low-profile bracket</li> <li>(2) – Screws</li> </ul> <p><b>Note:</b> SFP+ data cables are not included.</p>

## 5. Miscellaneous Accessory Options

Table 33. Miscellaneous accessory options

Image	Details	Description
	<p><b>Intel® Remote Management Module 4 Lite Activation Key</b></p> <p>iPC            AXXRMM4LITE2  MM#            946514  UPC            00735858307413  EAN            5032037080750  MOQ            1</p> <p><b>Product type</b>    Accessory kit</p>	<p>Installation of this activation key on to the server board enables support for the following advanced server management features:</p> <ul style="list-style-type: none"> <li>• Integrated KVM</li> <li>• Media redirection</li> </ul> <p>See the <i>Intel® Remote Management Module 4 and Integrated Web Console Users Guide</i> for more information.</p>
	<p><b>Tower Passive Heat Sink Kit</b></p> <p>iPC            AXXSTPHMKIT  MM#            959813  UPC            00735858345361  EAN            5032037105941  MOQ            1</p> <p><b>Product type</b>    Accessory kit</p>	<p><b>Kit includes:</b></p> <p>(1) – Heat sink  (1) – CPU carrier clip</p> <p><b>Note:</b> One kit is required for each processor installed on an Intel® Server Board S2600ST in an Intel® Server Chassis P4000.</p>
	<p><b>2U Hybrid Heat Sink Kit</b></p> <p>iPC            AXXSTPHMKIT2U  MM#            960402  UPC            00735858346634  EAN            5032037106696  MOQ            1</p> <p><b>Product type</b>    Accessory kit</p>	<p><b>Kit includes:</b></p> <p>(1) – Heat sink  (1) – Fan  (1) – Lid</p> <p><b>Required:</b> CPU carrier clip (iPC <b>AXXSTCPUCAR</b>) for processor installation</p> <p><b>Note:</b> One kit is required for each processor installed on an Intel® Server Board S2600ST in a compatible non-Intel 2U chassis.</p>
	<p><b>1U Passive Heat Sink Kit</b></p> <p>iPC            AXXSTPHMKIT1U  MM#            960403  UPC            00735858346610  EAN            5032037037525  MOQ            1</p> <p><b>Product type</b>    Accessory kit</p>	<p><b>Kit includes:</b></p> <p>(1) – Heat sink  (1) – Lid</p> <p><b>Required:</b> CPU carrier clip (iPC <b>AXXSTCPUCAR</b>) for processor installation</p> <p><b>Note:</b> One kit is required for each processor installed on an Intel® Server Board S2600ST in a compatible non-Intel 2U or 1U chassis.</p>

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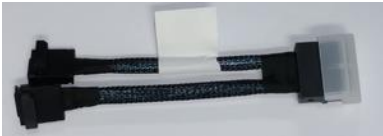


Image	Details	Description
	<p><b>Serial Adapter Cable Kit</b></p> <p><b>iPC</b>            AXXRJ45DB93  <b>MM#</b>            920430  <b>UPC</b>            00735858242820  <b>EAN</b>            5032037037525  <b>MOQ</b>            1</p> <p><b>Product type</b>    Accessory kit</p>	<p><b>Kit includes:</b></p> <p>(1) – 1040 mm serial 10-pin header to DB9 cable  (1) – 520 mm serial 10-pin header to DB9 cable  (1) – 100 mm DCD RJ45 to DB9 cable  (1) – 100 mm DSR RJ45 to DB9 cable</p>
	<p><b>Intel® QAT Bridge Cable</b></p> <p><b>iPC</b>            AXXSTCBLQAT  <b>MM#</b>            959878  <b>UPC</b>            00735858345224  <b>EAN</b>            5032037105804  <b>MOQ</b>            1</p> <p><b>Product type</b>    Accessory kit</p>	<p>95 mm Intel® QAT bridge cable for Intel® Server Board S2600STQ(R).</p>
	<p><b>BBU Bracket Kit</b></p> <p><b>iPC</b>            AXXSTBBUBRKT  <b>MM#</b>            959895  <b>UPC</b>            00735858345330  <b>EAN</b>            5032037105910  <b>MOQ</b>            1</p> <p><b>Product type</b>    Accessory kit</p>	<p>Supports up to (3) RAID Maintenance Free Backup Units (RMFBUs).</p>
	<p><b>GPGPU Bracket Kit</b></p> <p><b>iPC</b>            AXXSTPHIKIT  <b>MM#</b>            959897  <b>UPC</b>            00735858345385  <b>EAN</b>            5032037105965  <b>MOQ</b>            1</p> <p><b>Product type</b>    Accessory kit</p>	<p>Kit for securing full-length GPU cards to fan bulkhead.</p> <p><b>Kit includes:</b></p> <p>(1) – Bracket  (3) – GPGPU power cables  (3) – Brackets for Intel® Xeon Phi™ processors  (1) – 2 x 2 AUX in power cable</p> <p><b>Note:</b> Limited feature substitute available (iPC <b>AUPMCOPROBR</b>). See Table 34 for details.</p>



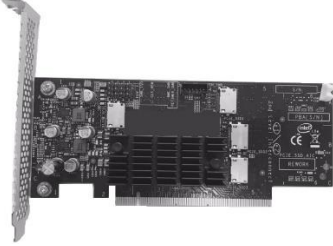


Image	Details	Description
	<p><b>Trusted Platform Module (TPM) 2.0</b></p> <p><b>iPC</b> AXXTPMENC8  <b>MM#</b> 955867  <b>UPC</b> 00735858345712  <b>EAN</b> 5032037106207  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p>A TPM is a hardware-based security device that addresses the growing concern on boot process integrity and offers better data protection. TPM protects the system start-up process by ensuring it is tamper-free before releasing system control to the operating system. A TPM device provides secured storage to store data, such as security keys and passwords. In addition, a TPM device has encryption and hash functions.</p> <p>AXXTPMENC8 implements TPM as per TPM PC Client specifications revision 2.0 by the Trusted Computing Group (TCG)</p>
	<p><b>Intel® Trusted Platform Module (TPM) 2.0</b></p> <p><b>iPC</b> AXXTPMCHNE8  <b>MM#</b> 960608  <b>UPC</b> 00735858347341  <b>EAN</b> 5032037107068  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p><b>Note:</b> AXXTPMCHNE8 compatible for use in China.</p> <p>A TPM is a hardware-based security device that addresses the growing concern on boot process integrity and offers better data protection. TPM protects the system start-up process by ensuring it is tamper-free before releasing system control to the operating system. A TPM device provides secured storage to store data, such as security keys and passwords. In addition, a TPM device has encryption and hash functions.</p> <p>AXXTPMCHNE8 implements TPM as per TPM PC Client specifications revision 2.0 by the Trusted Computing Group (TCG)</p>
	<p><b>4-Port PCIe* (x16 to x16) SSD Retimer Add-In Card 4P (OCuLink)</b></p> <p><b>iPC</b> AXXP3RTX16040  <b>MM#</b> 958240  <b>UPC</b> 00735858345613  <b>EAN</b> 5032037106108  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p>The SSD retimer add-in card connects to four x4 PCIe Gen3 links from any standard x16 PCIe slot on the baseboard to a PCIe SSD capable HSBP via four bundled OCuLink cables. The retimer is a low-profile form factor standard x16 PCIe card.</p> <p><b>Kit includes:</b></p> <ul style="list-style-type: none"> <li>(1) – 4-Port PCIe SSD Retimer AIC – iPN H88402-xxx</li> <li>(1) – 350 mm PEM Cable – iPN J14812-xxx</li> <li>(1) – Low profile bracket – iPN J32838-xxx</li> </ul> <p><b>Required:</b> Cable kit <b>A2U4PRTCXCXK</b> to connect the switch to the HSBP</p>
	<p><b>4 Port PCIe* x8 Switch Add-In Card</b></p> <p><b>iPC</b> AXXP3SWX08040  <b>MM#</b> 958241  <b>UPC</b> 00735858345620  <b>EAN</b> 5032037106115  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p>This switch add-in card is used to increase the number of PCIe SSD drives within the system by 4. The 4-drive switch is a low profile MD2 form factor PCIe card.</p> <p><b>Required:</b> Cable kit <b>AXXCBL625CVCX</b> to connect the switch to the HSBP</p>



Image	Details	Description
	<p><b>8 Port PCIe* x8 Switch Add-In Card</b></p> <p><b>iPC</b> AXXP3SWX08080  <b>MM#</b> 958242  <b>UPC</b> 00735858345637  <b>EAN</b> 5032037106122  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p>This switch add-in card is used to increase the number of PCIe SSD drives within the system by 8. The 8-drive switch is a full height form factor PCIe card. For non-Intel chassis use only.</p> <p><b>Required:</b> Cable kit <b>A2U8PSWCXCXK1</b> to connect the 8-port switch to the HSBP</p>

## 5.1 Limited-Feature Compatible Accessory Kits

Table 34 lists legacy accessory kits that can be used when integrating a system with the Intel Server Board S2600ST product family and Intel® Server Chassis P4304XXMUXX or P4304XXMFEN2.

**Table 34. Limited-feature compatible accessory kits**








Image	Details	Description
	<p><b>8 x 2.5" Hot-Swap Drive Cage Kit</b></p> <p><b>iPC</b> FUP8X25S3HSDK  <b>MM#</b> 936425  <b>UPC</b> 00735858290005  <b>EAN</b> 5032037068840  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p><b>Includes:</b></p> <ul style="list-style-type: none"> <li>(1) – drive cage</li> <li>(1) – hot-swap backplane – iPC <b>FXX8X25S3HSBP</b></li> <li>(8) – 2.5" hot-swap tool-less drive carriers – iPC <b>FXX25HSCAR</b></li> <li>(1) – I2C cable</li> <li>(1) – power adapter cable accessory</li> <li>(1) – ID filler panel</li> </ul> <p><b>Note:</b> Cable kit <b>AXXSTI2CCBL</b> is required when using this accessory kit.</p>
	<p><b>4 x 3.5" Hot-Swap Drive Cage Kit</b></p> <p><b>iPC</b> FUP4X35S3HSDK  <b>MM#</b> 936623  <b>UPC</b> 00735858289993  <b>EAN</b> 5032037068833  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p><b>Includes:</b></p> <ul style="list-style-type: none"> <li>(1) – drive cage</li> <li>(1) – hot-swap backplane – iPC <b>FUP4X35S3HSBP</b></li> <li>(4) – 3.5" hot-swap tool-less drive carriers – iPC <b>FXX35HSCAR</b></li> <li>(1) – I2C cable</li> <li>(1) – ID filler panel</li> </ul> <p><b>Note:</b> Cable kit <b>AXXSTI2CCBL</b> is required when using this accessory kit.</p>

Image	Details	Description
	<p><b>Bracket and Extension Kit</b></p> <p><b>iPC</b> AUPMCOPROBR  <b>MM#</b> 926364  <b>UPC</b> 00735858257046  <b>EAN</b> 5032037049139  <b>MOQ</b> 1</p> <p><b>Product type</b> Accessory kit</p>	<p>Kit for securing full-length GPU cards to fan bulkhead.</p> <p><b>Kit includes:</b>                      (1) – Bracket                      (2) – GPGPU power cables                      (2) – Brackets for Intel® Xeon Phi™ processors                      (5) – Screws for GPGPU fixture</p>

## 6. 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.

**Table 35. Spare and replacement parts**

Image	Details	Description
	<p><b>FUP550SNRPS</b></p> <p>Product discontinued as of July 1, 2018. See PCN 116128-01 for more details.</p>	
	<p><b>Spare Front Panel</b></p> <p><b>iPC</b> FXXFPANELR  <b>MM#</b> 946534  <b>UPC</b> 00735858307444  <b>EAN</b> 5032037080781  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p>Front panel board for Intel® Server Chassis P4000 product family.</p>
	<p><b>Spare Bezel</b></p> <p><b>iPC</b> FUPBEZELFIX2  <b>MM#</b> 925750  <b>UPC</b> 00735858254663  <b>EAN</b> 5032037047593  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p>Spare bezel with fixed drives (no door) for Intel® Server Chassis P4000 product family</p>
	<p><b>Spare Air Duct</b></p> <p><b>iPC</b> A4UCWDUCT  <b>MM#</b> 936419  <b>UPC</b> 00735858290029  <b>EAN</b> 5032037068864  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p>Spare air duct for Intel® Server Board S2600ST support in Intel® Server Chassis P4000</p>

Intel® Server S2600ST Product Family Configuration Guide


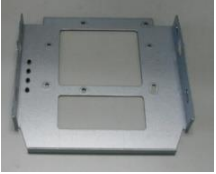

Image	Details	Description
	<p><b>I/O Shield AXXCWIOS</b>                      Product discontinued as of June 28 2019.                      See PCN 117036-00 for more details.</p>	
	<p><b>Fixed Drive Carrier</b></p> <p><b>iPC</b> FUP4X35NHDK  <b>MM#</b> 912770  <b>UPC</b> 735858219488  <b>EAN</b> 5032037016247  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p>Spare fixed drive carrier for Intel® Server Chassis P4304XXMUXX or P4304XXMFEN2 (also compatible with 2.5" HDDs/SSDs)</p>
<p><b>No image</b></p>	<p><b>Chassis Maintenance Kit</b></p> <p><b>iPC</b> FUPMMSK  <b>MM#</b> 915638  <b>UPC</b> 735858235990  <b>EAN</b> 5032037030755  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p>Chassis maintenance kit (mechanical spares kit) for Intel® Server Chassis P4000</p> <p><b>Includes:</b>                      (2) – EMI cover                      (4) – ODD rail                      (1) – PCI card retainer                      (2) – PCI EMI cover                      (3) – 5.25" EMI cover                      (4) – #6 -32 screw                      (20) – M3x12 USB cable screw                      (2) – M2x10 screw                      (2) – Plastic clamp for cabling                      (5) – Plastic bumper                      (3) – Plastic ODD cover                      (1) – Power button cap</p>
	<p><b>80 mm System Fan Kit</b></p> <p><b>iPC</b> FUPMLHSFAN  <b>MM#</b> 915620  <b>UPC</b> 735858235969  <b>EAN</b> 5032037030724  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p>80 mm system fan kit for Intel® Server Chassis P4000 family, for use in redundant cooling configuration</p>




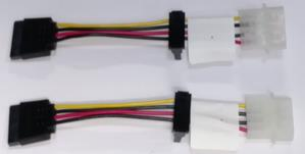
Image	Details	Description
	<p><b>120 mm Fixed CPU Fan Kit</b></p> <p><b>iPC</b> FUPNHFANCPU  <b>MM#</b> 919572  <b>UPC</b> 735858236034  <b>EAN</b> 5032037030793  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p>120 mm fixed fan spare kit for CPU area fan in Intel® Server Chassis P4000 family</p>
	<p><b>120 mm Fixed PCI Fan Kit</b></p> <p><b>iPC</b> FUPMNHFANPCI  <b>MM#</b> 919575  <b>UPC</b> 00735858236041  <b>EAN</b> 5032037030809  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p>120 mm fixed fan spare kit for PCI area fan in Intel® Server Chassis P4000 family</p>
	<p><b>Spare Kit for Front Panel</b></p> <p><b>iPC</b> AXXSTFPCBLKIT  <b>MM#</b> 959730  <b>UPC</b> 00735858345194  <b>EAN</b> 5032037105774  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p><b>Includes:</b>  (1) – 30-pin 920 mm front panel cable  (1) – 800 mm USB 3.0 cable for front panel</p>
	<p><b>SATA Power Adapter Cable Kit</b></p> <p><b>iPC</b> AXXSTCBL SATA  <b>MM#</b> 960399  <b>UPC</b> 00735858347105  <b>EAN</b> 5032037107013  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p><b>Includes:</b>  (2) – 4-pin to SATA power cable</p>








Image	Details	Description
	<p><b>M.2 Bracket Spare Kit</b></p> <p><b>iPC</b>            AXXSTM2BRKT  <b>MM#</b>            960400  <b>UPC</b>            00735858346368  <b>EAN</b>            5032037106641  <b>MOQ</b>            1</p> <p><b>Product type</b>   Spare FRU</p>	<p><b>Includes:</b>  (1) – Bracket  (2) – Screws</p>
	<p><b>Processor Carrier Clip</b></p> <p><b>iPC</b>            AXXSTCPUCAR  <b>MM#</b>            960401  <b>UPC</b>            00735858347372  <b>EAN</b>            5032037107099  <b>MOQ</b>            1</p> <p><b>Product type</b>   Spare FRU</p>	<p>Includes (1) carrier clip spare.</p>
	<p><b>Redundant Fan Cable Assembly</b></p> <p><b>iPC</b>            AXXSTCBLFAN  <b>MM#</b>            960404  <b>UPC</b>            00735858347112  <b>EAN</b>            5032037107020  <b>MOQ</b>            1</p> <p><b>Product type</b>   Spare FRU</p>	<p>Redundant fan cable assembly</p>
	<p><b>I2C Cable Kit</b></p> <p><b>iPC</b>            AXXSTI2CCBL  <b>MM#</b>            960398  <b>UPC</b>            00735858346351  <b>EAN</b>            5032037106634  <b>MOQ</b>            1</p> <p><b>Product type</b>   Spare FRU</p>	<p>I2C cable kit E-CBL-KIT-I2CDRV</p> <p><b>Includes:</b>  (1) – 4-pin to 6-pin 350mm I2C cable  (1) – 4-pin to 5-pin 350mm I2C cable  (1) – 5-pin to 6-pin 220mm I2C cable  (1) – 6-pin to 6-pin 220mm I2C cable  (1) – 5-pin to 5-pin 220mm I2C cable  (1) – 5-pin to 5-pin 75mm I2C cable  (1) – “Y” shaped 150mm power cable for backplane</p>

Image	Details	Description
	<p><b>Intrusion Cable</b></p> <p><b>iPC</b> FXXSTCBLINTR  <b>MM#</b> 959890  <b>UPC</b> 00735858345309  <b>EAN</b> 5032037105880  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p>Intrusion cable spare for Intel® Chassis P4304XXMUXX and P4304XXMFEN2</p>
	<p><b>2.5" Tool Less Hot-Swap Drive Carrier</b></p> <p><b>iPC</b> FXX25HSCAR3  <b>MM#</b> 958244  <b>UPC</b> 00735858345668  <b>EAN</b> 5032037106153  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p>Spare 2.5" tool less drive hot-swap carrier</p>
	<p><b>3.5" Tool Less Hot-Swap Drive Carrier</b></p> <p><b>iPC</b> FXX35HSCAR2  <b>MM#</b> 958245  <b>UPC</b> 00735858345675  <b>EAN</b> 5032037106160  <b>MOQ</b> 1</p> <p><b>Product type</b> Spare FRU</p>	<p>Spare 3.5" tool less drive hot-swap drive carrier  Includes mounting screws for mounting 2.5" SSDs.</p>

## Appendix A. Glossary

Term	Definition
<b>AIC</b>	Add-In Card
<b>CMA</b>	Cable Management Arm
<b>CRPS</b>	Common Redundant Power Supply
<b>EAN</b>	International Article Number (Barcode)
<b>ECC</b>	Error Correcting Code
<b>EMI</b>	Electromagnetic Interference
<b>FRU</b>	Field Replaceable Unit
<b>GPGPU</b>	General Purpose computing on Graphics Processing Unit
<b>iPC</b>	Intel Product Code
<b>iPN</b>	Intel Product Number
<b>JBOD</b>	Just a bunch of drives
<b>KVM</b>	Keyboard, Video, Mouse
<b>MM#</b>	Master Material order number
<b>MOQ</b>	Minimum Order Quantity
<b>NVMe*</b>	NVM Express* – based on Non-Volatile Memory Host Controller Interface Specification (NVMHCI)
<b>Optional Accessory</b>	Hardware that can be added to the system to enhance the default feature set of the shipping configuration
<b>Intel® QAT</b>	Intel® QuickAssist Technology
<b>RAID</b>	Redundant Array of Independent Drives
<b>Required Option</b>	Hardware that must be added to the shipping configuration for the system to operate
<b>RMFBU</b>	RAID Maintenance Free Backup Unit
<b>Intel® RMM4 Lite</b>	Intel® Remote Management Module 4 Lite Activation key
<b>ROC</b>	RAID on Chip
<b>Intel® RSTe</b>	Intel® Rapid Storage Technology enterprise
<b>SAS</b>	Serial Attached SCSI
<b>SATA</b>	Serial ATA
<b>SFF NVMe*</b>	NVMe SSD in a 2.5" form factor
<b>SFP</b>	Small Form factor Pluggable
<b>SKU</b>	Stock Keeping Unit
<b>SSD</b>	Solid State Drive
<b>TPM</b>	Trusted Platform Manager
<b>UPC</b>	Universal Product Code (Barcode)
<b>Intel® VROC</b>	Intel® Virtual RAID on CPU



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