

Intel® S1200SP Product Family

Intel® Server Chassis P4304XXSHCN/P4304XXSFCN/P4000XXSFDR

Configuration Guide and Spares/Accessories List

A *Reference document* used to assist with ordering parts and accessories available to configure an Intel® server system based on the Intel® Server S1200SP product family.

Revision 1.0
November 23, 2015

Intel® Server Boards and Systems

Document Revision History

Date Published	Revision	Revision Change Description
November	1.0	First Public Release

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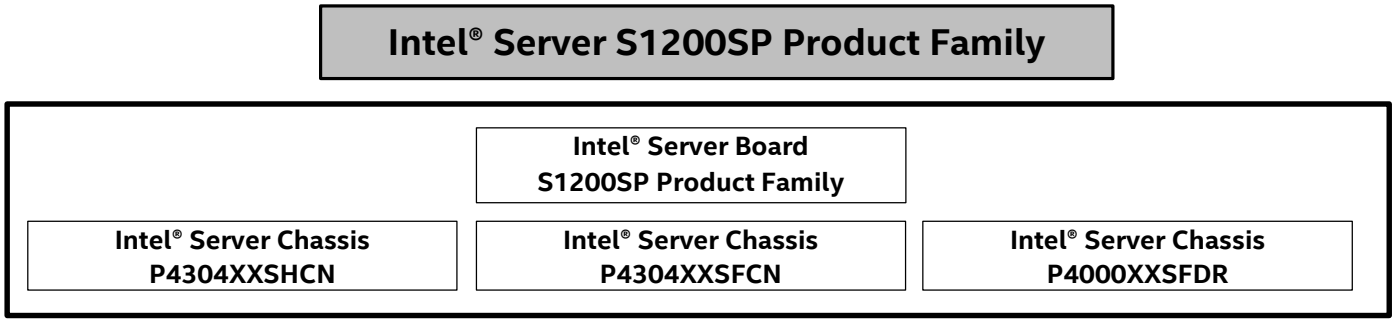
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1. Intel® Server S1200SP Product Family Overview

This document is provided to assist Intel customers with identifying the right Intel server system and available accessories, enabling them to create a unique server platform that meet their unique server requirements.

The Intel® Server S1200SP product family is offered as both building block options and integrated systems. The product family consists of the following:



Server Building Blocks:

- **Intel® Server Board S1200SP product family** – Server Board only (Building block option and spare FRU)
- **Intel® Server Chassis P4304XXSHCN, P4304XXSFCN,** & **P4000XXSFDR** – Pedestal Server Chassis only

The Intel® Server **S1200SP** product family supports the following processors and memory:

- Intel® Xeon® processor E3-1200 v5 series product family
  Note: Previous generation Intel® Xeon® processors are not supported.
- Intel® Core®processor i3 series product family
- DDR4 ECC UDIMM

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 1. Product Family Reference Collaterals

For this information or software	Use this Document or Software
For in-depth technical information about this product family	• *Intel® Server Board S1200SP Technical Product Specification* • *Intel® Server Chassis P4000XXSFDR Technical Product Specification* • *Intel® Server System BIOS Setup Utility Guide* • *Product Safety and Regulatory Compliance* http://www.intel.com/p/en_US/support/highlights/server/s2600wt?wapkw=s2600wt+family
For system integration instructions and service guidance	• Intel® Server Chassis P4000XXSFDR System Integration and Service Guide http://www.intel.com/p/en_US/support/highlights/server/s2600wt?wapkw=s2600wt+family
For server configuration guidance and compatibility	Intel® Server Configurator tool http://serverconfigurator.intel.com
For system power budget guidance	*Intel® Server S1200SP Product Family Power Budget Tool and Thermal Configuration Guide*
For system firmware updates, onboard device drivers, and software to manage your Intel® Server System.	
For a complete list of supported processors, memory, add-in cards, and peripherals:	

1.1 Intel® Server Board S1200SP Product Family Overview

The server board product family consists of two server board models: **S1200SPL, S1200SPS.**



Intel® Server Board S1200SPL



Intel® Server Board S1200SPS

Figure 1. Intel® Server Board S1200SP product family

The following table provides an overview of available server board options for the Intel® Server Board S1200SP product family. Each line item identifies key features of the specified server board. Order code information and full product descriptions for each option are provided in later sections.

	S1200SPL	S1200SPS
Board Form Factor	uATX (9.6" x 9.6")	uATX (9.6" x 9.6")
Procesor Support	Intel® Xeon® processor E3-1200 v5 series Intel® Core®processor i3 series	Intel® Xeon® processor E3-1200 v5 series Intel® Core®processor i3 series
Intel® Chipset	C236	C232
DIMM Slots	4	4
DIMM Type	DDR4 UDIMM	DDR4 UDIMM
PCIe* 3.0 Add-in Card Support	1 – PCIe* 3.0 x8 elec, x16 mech 1 – PCIe* 3.0 x4 elec, x8 mech 1 – PCIe* 3.0 x8 elec, x8 mech	1 – PCIe* 3.0 x8 elec, x16 mech 1 – PCIe* 3.0 x4 elec, x8 mech 1 – PCIe* 3.0 x8 elec, x8 mech
Riser Card Support	No	No
Intel® Integrated SAS RAID Module Support	Yes	No
Intel® I/O Module Support	No	No
On-Board Storage Options	8 – 6Gb SATA Ports 1 – M2 SATA Connector	6 – 6Gb SATA Ports
On-Board Network Connectivity	Dual Intel® i210 Gigabit Ethernet	Dual Intel® i210 Gigabit Ethernet

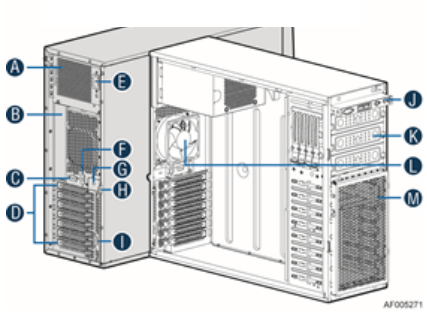
1.2 Supported Intel® Server Chassis Overview

The Intel Server Board S1200SP product family supports the following chassis only server building block options. Note that the chassis P4000XXSFDR is been newly introduced to support S1200SP board famly, the chassis P4304XXSFCN and P4304XXSHCN are existing chassis products that are compatible with S1200SP board family.



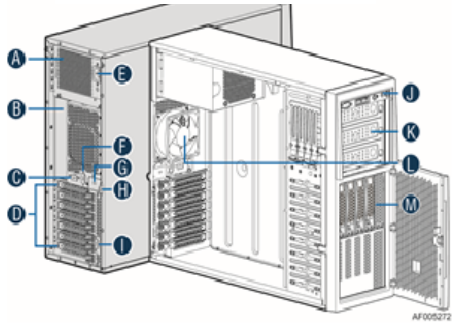
Figure 2. General Purpose Pedestal Intel® Server Chassis

iPC – **P4304XXSFCN (Existing)**



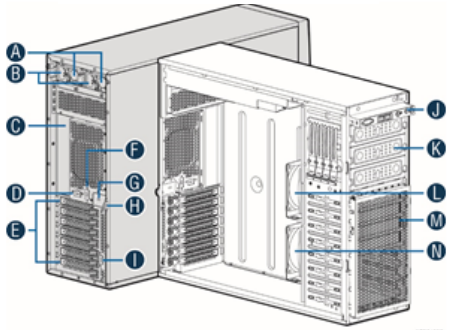
A. 365W Fixed Power supply
B. I/O Ports
C. Alternate RMM4 Knockout
D. PCI Add-in Board Slot Covers
E. AC Input Power Connector
F. Serial Port Knockout
G. A Kensington* Cable Lock Mounting Hole
H. Padlock Loop
I. Alternate RMM4 Knockout
J. Front Control Panel
K. Alternate 5.25" Peripheral Bays
L. 92x38mm System Rear Fan
M. Fixed Hard Drive Bays

iPC – **P4304XXSHCN (Existing)**



A. 365W Fixed Power Supply
B. I/O Ports
C. Alternate RMM4 Knockout
D. PCI Add-in Board Slot Covers
E. AC Input Power Connector
F. Serial Port Knockout
G. A Kensington* Cable Lock Mounting Hole
H. Padlock Loop
I. Alternate RMM4 Knockout
J. Front Control Panel
K. 5.25" Peripheral Bays
L. 92x38mm System Rear Fan
M. 4x3.5" Hot-swap HDD Cage

iPC – **P4000XXSFDR (New)**



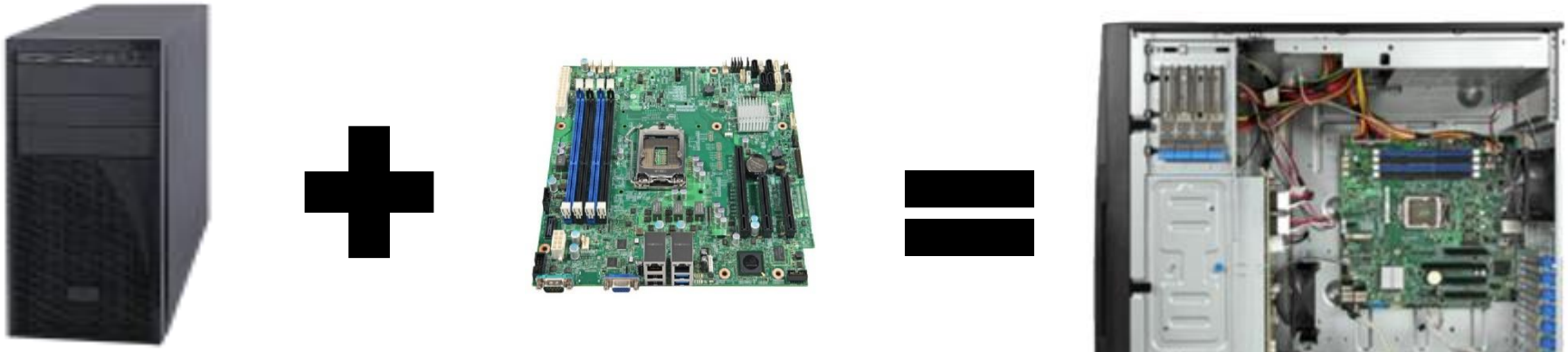
A. 460W Redundant Power Supply (Two)
B. AC Input Power Connector (Two)
C. I/O Ports
D. Alternate RMM4 Knockout
E. PCI Add-in Board Slot Covers
F. Serial Port Knockout
G. A Kensington* Cable Lock Mounting Hole
H. Padlock Loop
I. Alternate RMM4 Knockout
J. Front Control Panel
K. Alternate 5.25" Peripheral Bays
L. CPU Zone System Fan
M. Fixed Hard Drive Bays
N. PCI Zone System Fan

2. Server Building Block Configuration

Server building blocks are offered to give Intel customers the option to configure and assemble a unique server system from the bare chassis up. Each building block component and optional accessory is purchased seperately. At a minimum, building up a functional server system using building blocks will require the following:

- Intel Server Chassis: **P4304XXSFCN, P4304XXSHCN**, or **P4000XXSFDR**
- Intel® Server Board S1200SP: **S1200SPL**, **S1200SPS**
- SAS / SATA Data cables
- Power cord(s)
- Processor
- Memory
- Storage Drives

Server Building Blocks



Chassis only

Server Board

Optional Intel® accessories that can be added include the following: See Chapter 4 for available options.

- SAS / SAS RAID support – PCIe* add-in card or module + Appropriate SAS Data cable(s)
- Intel® I/O Module
- Intel® Remote Management Module 4 Lite

2.1 Intel® Server Board S1200SP Product Family SKUs

Intel® Product Code (iPC)	Order Information	Product Description	Product Type
iPC – **DBS1200SPL**	MM# - 944682 UPC - 00735858306386 EAN - 5032037079846 MOQ - 5	**Intel® Server Board S1200SPL**  • 1 CPU Socket • 4 DDR4 UDIMM slots (Unbuffered) 2 channels native • 3 PCIe* 3.0 Slots • Dual Gigabit Ethernet ports (Intel® i210) • Intel® Integrated SAS RAID Module Support • 8 SATA 6G ports via chipset • SATADOM support on SATA4 port • SATA M.2 support (2242 form factor) • USB 3.0 support – 2 External Ports (rear) , 2 ports via onboard cable header • TPM Header • Integrated BMC Graphics • Display port • Base Manageability features based on IPMI 2.0 and dedicated management NIC port onboard • Can be upgraded to support remote KVM & Media redirection Included: 1 – Server Board 4 – SATA Data Cables 1 – I/O Shield 1 – Attention Document 1 – Quick Start User's Guide 1 – Quick Configuration Label	**Server Board only** Building block option Spare FRU

Intel® Product Code (iPC)	Order Information	Product Description	Product Type
iPC – **DBS1200SPS**	MM# - 944683 UPC - 00735858306393 EAN - 5032037079853 MOQ - 5	**Intel® Server Board S1200SPS**  • 1 CPU Socket • 4 DDR4 UDIMM slots (Unbuffered) 2 channels native • 3 PCIe* 3.0 Slots • Dual Gigabit Ethernet ports (Intel® i210) • USB 3.0 support – 2 External Ports (rear) • 6 SATA 6G ports via chipset • SATADOM support on SATA4 port • Integrated BMC Graphics • Base Manageability features based on IPMI 2.0 Included: 1 – Server Board 4 – SATA Data Cables 1 – I/O Shield 1 – Attention Document 1 – Quick Start User's Guide 1 – Quick Configuration Label	**Server Board only** • Building block option • Spare FRU

2.2 Intel® Server Chassis Building Block Options – General Purpose Pedestal (4U rack option)

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:

- 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
- **Optional Accessories** – Some of the available accessories which can be installed to enhance the basic feature set of the server board / chassis. Additional accessories can be found in Chapter 4.

NOTES:

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



Figure 3. Intel® Server Chassis only Building Block (KDK)

Intel® Product Code (iPC): **P4304XXSFCN**  **Pedestal Chassis – 4 x 3.5" Fixed Mount Drives, 1 x 365W power**	**Order Code Information:** MM# - 911754 UPC - 00735858219358 EAN - 5032037016933 MOQ - 1	Product Type: Chassis Only Chassis Form Factor: Pedestal (4U rack mount option) Chassis dimensions: L=560 mm, W=438 mm, H=173 mm Packaged Gross Weight: 17.8 Kgs, 39.3 Lbs Un-packaged Net Weight: 12.3 Kgs, 27.2 Lbs Outer Box Dimensions: L=698mm, W=553mm, H=375mm

Product Definition and Configuration Requirements

Intel® product code **P4304XXSFCN** includes the following components:
 	
(1) Pedestal Chassis
(1) Front Panel assembly with cables
(1) 365W Fixed Mount Power
(1) System fan assembly
(4) fixed mount drive trays
(4) Plastic chassis foot paddle
(2) ODD Slide Rail Assemblies
(1) 200mm chassis intrustion switch cable
(2) 150mm dual SATA Drive power cable
(1) Quick Install Users Guide
 	
Server board mount rubber bumpers
Server board mounting screws
	Required Items – Sold Separately:
	
	• Intel® Server Board S1200SP (choose one)
	  ○ **S1200SPL**
	  ○ **S1200SPS**
	• Power Cord(s)
	• 1 Boxed w/Heatsink Intel® processor (choose one)
	  ○ **Intel® Xeon® Processor E3-1200 v5 product family**
	  ○ **Intel® Core® processor i3 product family**
	• DDR4 memory (UDIMM)
		Optional Intel® Accessories – Sold Separately:
		
		See Chapter 4 for all available accessory options.

Intel® Product Code (iPC):	**Order Code Information:**	
P4304XXSHCN  **Pedestal Chassis – 4 x 3.5" Hot Swap Drives, 1 x 365W power**	MM# - 911765 UPC - 00735858219365 EAN - 5032037016940 MOQ - 1	Product Type: Chassis Only Chassis Form Factor: Pedestal (4U rack mount option) Chassis dimensions: L=560 mm, W=438 mm, H=173 mm Packaged Gross Weight: 18.9 Kgs, 41.6 Lbs Un-packaged Net Weight: 17.1 Kgs, 37.7 Lbs Outer Box Dimensions: L=698mm, W=553mm, H=375mm

Product Definition and Configuration Requirements

Intel® product code **P4304XXSHCN** includes the following components:	**Required Items – Sold Separately:**	**Optional Intel® Accessories – Sold Separately:**

(1) Pedestal Chassis
(1) Front Panel assembly with cables
(1) 365W Fixed Mount Power Supply
(1) System fan assembly
(1) 4 x 3.5" drive hot swap
(4) 3.5" Hot swap drive carriers
(4) Plastic chassis foot paddle
(2) ODD Slide Rail Assemblies
(1) 450mm SATA data cable
(1) 600mm I2C data cable
(1) 450mm SGPIO data cable
(1) 200mm chassis intrustion switch cable
(1) Quick Install Users Guide
 	
Server board mount rubber bumpers
Server board mounting screws
	• Intel® Server Board S1200SP (choose one)
	  ○ **S1200SPL**
	  ○ **S1200SPS**
	• Power Cord(s)
	• 1 Boxed w/Heatsink Intel processor (choose one)
	  ○ **Intel® Xeon® Processor E3-1200 v5 product family**
	  ○ **Intel® Core® processor i3 product family**
	• DDR4 memory (UDIMM)
		See Chapter 4 for all available accessory options.

Intel® Product Code (iPC):	**Order Code Information:**	
P4000XXSFDR  **Pedestal Chassis – 4 x 3.5" Fixed Mount Drives, Dual 460W power**	MM - 944468 UPC - 00735858306485 EAN - 5032037079945 MOQ - 1	Product Type: Chassis Only Chassis Form Factor: Pedestal (4U rack mount option) Chassis dimensions: L=560mm, W=438mm, H=173mm Packaged Gross Weight: 17.1 Kgs, 37.7 Lbs Un-packaged Net Weight: 14.6 Kgs, 32.2 Lbs Outer Box Dimensions: L=698mm, W=553mm, H=375mm

Product Definition and Configuration Requirements

Intel® product code P4000XXSFDR includes the following components:	**Required Items – Sold Separately:**	**Optional Intel® Accessories – Sold Separately:**

(1) Pedestal Chassis
(1) Front Panel assembly with cables
(2) 460W Power Supply Modules
(1) System rear fan assembly
(1) System PCIe zone fan assembly
(4) fixed mount drive trays
(4) Plastic chassis foot paddle
(2) ODD Slide Rail Assemblies
(1) 200mm chassis intrustion switch cable
(2) 150mm dual SATA Drive power cable
(1) SATA cable for onboard M.2 connector
(1) USB 3.0 cable
 	
Server board mount rubber bumpers
Server board mounting screws
	• Intel® Server Board S1200SP (choose one)
	  ○ **S1200SPL**
	  ○ **S1200SPS**
	• Power Cord(s)
	• 1 Boxed w/Heatsink Intel® processor (choose one)
	  ○ **Intel® Xeon® Processor E3-1200 v5 product family**
	  ○ **Intel® Core® processor i3 product family**
	• DDR4 memory (UDIMM)
		See Chapter 4 for all available accessory options.

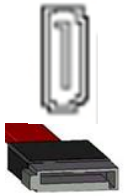
3. SAS / SATA Data Cable Guide

Following SAS / SATA data cables may need to be ordered seperately to match the desired system configuration.

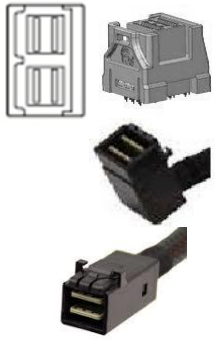
3.1 SAS / SATA Data Cable Connector Types

There are three storage interface connector types used within this product family:

Single Port SATA Connector

Image	Description
	7-pin Single Port SATA Support for up to 6 GB/sec SATA devices Where used: - On the server board - 6Gb/sec 4x3.5” Hot-Swap Backplane (iPC FUP4X35HSDK, FUP4X35HSBP) - SATA Optical Drive – CD/DVD - SATA DOM

Multiport MiniSAS HD Connectors

Image	Description
	SFF-8643 Support for up to 12 Gb/Sec SAS and 6 Gb/sec SATA devices Where used: - 12Gb/sec 4x3.5” Hot-Swap Backplane (iPC FUP4X35S3HSDK, FUP4X35S3HSBP) - All 12 Gb/sec SAS RAID Controllers - All 12 Gb/sec SAS Expander Cards

Multiport MiniSAS Connector

Image	Description
	SFF-8087 Support for up to 6 Gb/Sec SAS / SATA devices Where used: - 6Gb/sec 8x3.5" Hot-Swap Backplane (iPC FUP8X35HSDK, FUP8X35HSBP) - All 6 Gb/sec SAS RAID Controllers - All 6 Gb/sec SAS Expander Cards

When connecting a 6Gb/sec SAS Controller or SAS Expander to a 12 Gb/sec capable hot swap backplane, the data cables used will need a SFF-8643 connector on one end of the cable and a SFF-8087 connector on the other. See Table 2. Storage Data Cable Kit Description and Order Information for appropriate cable kits.

3.2 Intel® Server Chassis P4000XXSFDR SAS / SATA Cable Guide

The cables included in the Intel® Server Chassis P4000XXSFDR (iPN G14960-001 for 600mm and G14959-001 for 450mm) can support the connection from onboard SATA ports to 4x3.5" fixed drive (default in P4000XXSFDR), or from onboard SATA ports to 4x3.5" 6Gb/s backplane (iPC FUP4X35HSDK, FUP4X35HSBP).

From / To	onboard SATA
4x3.5" fixed drive	Default in chassis G14960-001(600mm) G14959-001(450mm)
4x3.5" 6Gb/s backplane iPC FUP4X35HSDK, FUP4X35HSBP	Default in chassis G14960-001(600mm) G14959-001(450mm)

The server chassis P4000XXSFDR also support 8x3.5" 6Gb/s hotswapable drives, or 4x3.5"/8x3.5" 12Gb/s hotswapable drives. The cables needed seperately are listed in the table.

From / To	onboard SATA	6G RAID card	12G RAID card
8x3.5" 6Gb/s backplane iPC FUP8X35HSDK, FUP8X35HSBP	(2) AXXE3PED8DCBL, includes: G14989-003(480mm)	(2) AXXE38DRVCBL, includes: G14989-003(480mm)	(1) AXXCBL570HDMS (1) AXXCBL340HDMS
4x3.5" 12Gb/s backplane iPC FUP4X35S3HSDK, FUP4X35S3HSBP	(1) AXXE3RACK8DCBL, includes: H66180-002(270mm)	(1) AXXCBL570HDMS	(1) AXXCBL650HDHD

	H66179-002(530mm)		
8x3.5" 12Gb/s (Two 4x3.5" 12Gb/s backplanes) iPC FUP4X35S3HSDK, FUP4X35S3HSBP	(1) AXXE3RACK8DCBL, includes: H66180-002(270mm) H66179-002(530mm)	(1) AXXCBL570HDMS (1) AXXCBL340HDMS	(1) AXXCBL380HDHD (1) AXXCBL650HDHD

3.3 Intel® SAS / SATA Data Cable Kits

Table 2. Storage Data Cable Kit Description and Order Information

Image	Order Information	Description
	iPC - AXXE38DRVCBL MM# - 928729 UPC - 00735858263603 EAN - 5032037052832 MOQ - 1	Cable kit for two, 350mm and 550mm long, miniSAS 8087 to miniSAS 8087. Required in 4U chassis when connecting from 6Gb raid module to SATA 6Gb backplane miniSAS 8087 (8 drives).
	iPC - AXXE3RACK8DCBL MM# - 943592 UPC - 00735858306577 EAN - 5032037080033 MOQ - 1	270 mm and 530 mm long, cable kit (2 cables included), 7pin SATA to SFF-8643 Required to connect onboard 7pin SATA ports to 1U miniSAS HD connectors (SFF-8643) on 8x2.5" backplane. Shipped by default with R1208SPOSHOR.
	iPC - AXXE3PED8DCBL MM# - 943593 UPC - 00735858306584 EAN - 5032037080040 MOQ - 1	480 mm long, cable kit (2 cables included), 7pin SATA to SFF-8087 Required in 4U chassis when connecting from onboard 7pin SATA ports to SATA 6Gb backplane miniSAS 8087 (8 drives).
	iPC - AXXCBL570HDMS MM# - 944202 UPC - 00735858306614 EAN - 5032037080071 MOQ - 2	570 mm long, cable kit (2 cables included) straight SFF8643 to straight SFF8087.

Image	Order Information	Description
	iPC - AXXCBL340HDMS MM# - 944203 UPC - 00735858306621 EAN - 5032037080088 MOQ - 2	340 mm long, cable kit (2 cables included) straight SFF8643 to straight SFF8087.
	iPC – AXXCBL650HDHD MM# – 937129 UPC – 00735858284752 EAN – 5032037065047 MOQ – 1	650 mm long, cable kit (2 cables included) straight SFF8643 to straight SFF8643

4. Accessory Options

4.1 General Accessories

Intel® Product Code	Order Information	Product Description	Product Type
 Demo only	iPC - AXXRMM4LITE2 MM# - 946514 UPC - 00735858307413 EAN - 5032037080750 MOQ - 1	**Intel® Remote Management Module RMM4 LITE -Remote KVM upgrade Key**	• Accessory
 Demo only	iPC - AXXTPME3 MM# - 922115 UPC - 00735858219310 EAN - 5032037015196 MOQ - 1	**Intel® TPM Trusted Platform Module for E3 platform**	• Accessory

Intel® Product Code	Order Information	Product Description	Product Type
 Demo only	iPC - FUP4X35HSDK MM# - 911885 UPC - 00735858219440 EAN - 5032037016230 MOQ - 1	**3.5" Hot Swap Drive Kit for P4000 server chassis** Includes: Drive Cage, Hot Swap Back Plane, 4 Hot Swap Drive carriers, data cables, I^2C cable, and ID filler	• Accessory
 Demo only	iPC - FUP8X35HSDK MM# - 915608 UPC - 00735858235907 EAN - 5032037030663 MOQ - 1	**8x3.5" Hot Swap Drive Cage Kit for P4000 server chassis** Includes: Drive Cage, Hot Swap Back Plane, 8 Hot Swap Drive Carriers, data cables, I^2C cable, and ID filler panel	• Accessory
 Demo only	iPC - FUP4X35S3HSDK MM# - 936623 UPC - 00735858289993 EAN - 5032037068833 MOQ - 1	**3.5" Hot Swap Drive Kit for P4000 server chassis** Includes: Drive Cage, Hot Swap Back Plane, 4 Hot Swap Drive carriers, I2C cable, IMPB cable, 4 SATA cables and ID filler	• Accessory
 Demo only	iPC - FUPBEZELFIX MM# - 911886 UPC - 00735858219457 EAN - 5032037016254 MOQ - 1	**Pedestal Bezel (Fixed HDD version)** Fits P4000 with fixed hard disks	• Accessory
 Demo only	iPC - FUPBEZELHSD MM# - 911896 UPC - 00735858219464 EAN - 5032037016261 MOQ - 1	**Pedestal Bezel (HS HDD version)** Fits P4000 with HS drive bays installed, version with door for drive bays)	• Accessory

4.2 Intel® Integrated SAS RAID Modules

Intel® Server Board S1200SP product family support Intel® Integrated SAS RAID Modules. The Intel® Server Board S1200SPL board support modules on both PCIe* slot and Mezzenine slot, the Intel® Server Board S1200SPS board support modules on PCIe* slot. The illustration below shows how the SAS RAID module is installed to the server board.

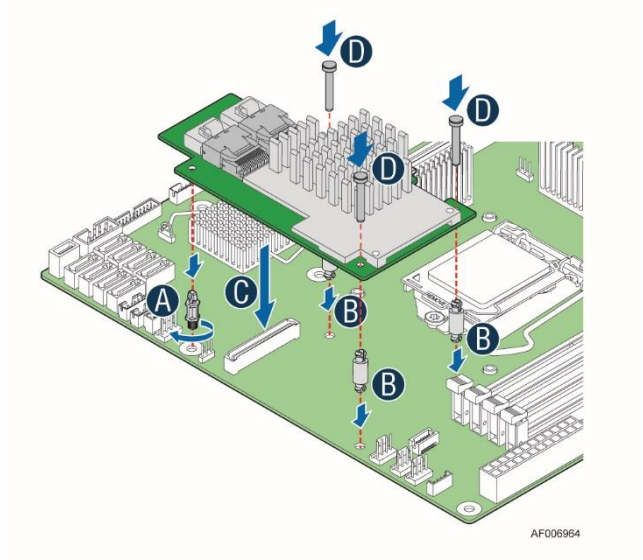
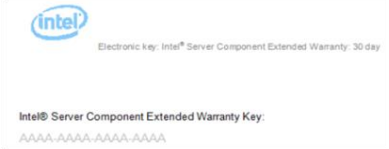


Figure 4. Installing Intel® Integrated SAS RAID Mudules

Intel® Product Code	Order Information	Product Description	Product Type
 Demo only	iPC - RMS25JB040 MM# - 917088 UPC - 00735858239011 EAN - 5032037033794 MOQ - 5	**Intel® Integrated RAID Module RMS25JB040** SAS 6GB, 4 internal ports, LSI2308	• Accessory

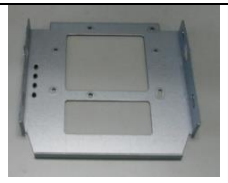
Intel® Product Code	Order Information	Product Description	Product Type
 Demo only	iPC - RMS25JB080 MM# - 917087 UPC - 00735858239004 EAN - 5032037033787 MOQ - 5	**Intel® Integrated RAID Module RMS25JB080** SAS 6GB, 8 internal ports, LSI2308	• Accessory
 Demo only	iPC - RMS25KB040 MM# - 924453 UPC - 00735858239011 EAN - 50320370337945 MOQ - 5	**Intel® Integrated RAID Module RMS25KB040** SAS 6GB, 4 internal ports, LSI2308	• Accessory
 Demo only	iPC - RMS25KB080 MM# - 924452 UPC - 00735858239004 EAN - 50320370337875 MOQ - 5	**Intel® Integrated RAID Module RMS25KB080** SAS 6GB, 8 internal ports, LSI2308	• Accessory
 Demo only	iPC - RMS25PB040 MM# - 924869 UPC - 00735858238953 MOQ - 5	**Intel® Integrated RAID Module RMS25PB040** SAS 6GB, 4 internal ports,LSI2208, DDR3 1GB, optional Flash based Cache protection	• Accessory
 Demo only	iPC - RMS25PB080 MM# - 924868 UPC - 00735858238946 MOQ - 5	**Intel® Integrated RAID Module RMS25PB080** SAS 6GB, 8 internal ports, LSI2208, DDR3 1GB, optional Flash based Cache protection	• Accessory
 Demo only	iPC - RMS25PB080N MM# - 922597 UPC - 00735858248587 EAN - 5032037043328 MOQ - 5	**Intel® Integrated RAID Module RMS25PB080N** SAS 6GB, 8 internal ports, LSI2208, DDR3 1GB	• Accessory

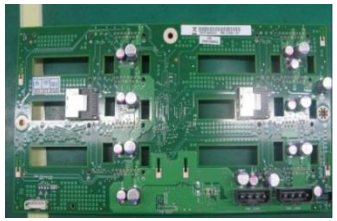
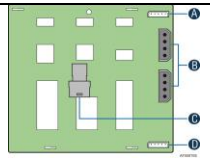
Intel® Product Code	Order Information	Product Description	Product Type
 Demo only	iPC - RMS3CC040 MM# - 932473 UPC - 00735858276849 EAN - 5032037060455 MOQ - 5	**Intel® Integrated RAID Module RMS3CC040** SAS 12GB, 4 internal ports, LSI3108, DDR3 1GB	• Accessory
 Demo only	iPC - RMS3CC080 MM# - 932474 UPC - 00735858276832 EAN - 5032037060448 MOQ - 5	**Intel® Integrated RAID Module RMS3CC080** SAS 12GB, 8 internal ports, LSI3108, DDR3 1GB	• Accessory
 Demo only	iPC - RMS3HC080 MM# - 932469 UPC - 00735858276818 EAN - 5032037060424 MOQ - 5	**Intel® Integrated RAID Module RMS3HC080** SAS 12GB, 8 internal ports, LSI3008	• Accessory
 Demo only	iPC - RMT3PB080 MM# - 924870 UPC - 00735858238960 MOQ - 5	**Intel® Integrated RAID Module RMT3PB080** SATA 6GB, 8 internal ports, LSI2208, DDR3 1GB, optional Flash based Cache protection	• Accessory
 Demo only	iPC - RKSATA8R5 MM# - 916348 UPC - 00735858238885 EAN – 5032037033664 MOQ - 5	**Intel® RAID Upgrade Key RKSATA8R5** Enables LSI SATA SW RAID 5	• Accessory

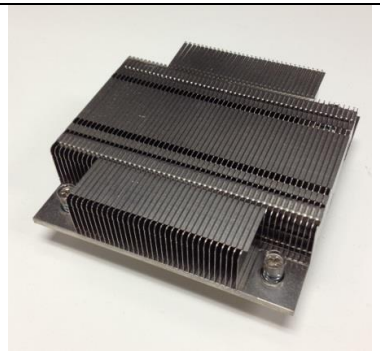
Intel® Product Code	Order Information	Product Description	Product Type
 Demo only	iPC - AXXRSBBU9 MM# - 919738 UPC – 00735858220286 MOQ - 5	**Intel® RAID Smart Battery AXXRSBBU9** Provides optional battery backup for mainstream RS25, RMS25, RT3 and RMT3 family RAID products.	• Accessory
 Demo only	iPC - AXXRMFBU5 MM# - 933907 UPC - 00735858276801 EAN – 5032037060417 MOQ - 5	**Intel® RAID Maintenance Free Backup Unit AXXRFMBU5** Super-capacitor module and flash memory card designed to help protect data in dynamic memory during a power failure or system crash event.	• Accessory
 Demo only	iPC - AXXRMFBU2 MM# - 926341 UPC – 007358582445415 MOQ - 5	**Intel® RAID Maintenance Free Backup Unit** Provides optional battery backup for mainstream RMS25, and RMT3 family RAID products.	• Accessory
		**Intel® Server Component Extended Warranty** Extended Warranty SKU RAID Extends Warranty from 3 years to 5 years	• Accessory

5. Spare and Replacement Parts (FRUs) for 4U Intel® Server Chassis

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

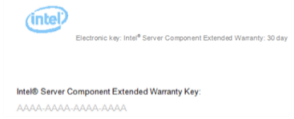
Intel® Product Code	Order Information	Product Description	Product Type
 Demo only	iPC - FXXFPANELR MM# - 946534 UPC –00735858307444 EAN - 5032037080781 MOQ - 1	**Front Panel Board Spare** For use on P4000XXSFDR chassis RoHS free Different from FXXFPANEL by 0.6mm offset of reset and power buttons	• Spare
 Demo only	iPC - AP4000E3V5PDB MM# - 943589 UPC - 00735858306546 EAN - 5032037080002 MOQ - 1	**P4000 Power Distribution Board Spare** For P4000XXSFDR chassis	• Spare
 Demo only	iPC - FXX35HSCAR MM# - 936192 UPC - 00735858289412 EAN – 5032037068390 MOQ - 8	**3.5” HDD Hot Swap Carrier Spares**	• Spare
 Demo only	iPC - FUP4X35NHDK MM# - 912770 UPC - 00735858219488 EAN - 5032037016247 MOQ - 4	**Fixed Drive Carrier for Fixed Pedestal Chassis**	• Spare

Intel® Product Code	Order Information	Product Description	Product Type
 Demo only	iPC - FUPSESK MM# - 912774 UPC - 00735858219525 EAN - 5032037016285 MOQ - 1	**Chassis Maintenance Kit for P4000S Chassis (Electrical Spare Kit)** These parts in the kit can be used with S1200SP: • 1x intrusion cable, 200mm • 3x SATA power cables, one 4- pin ATX power header to 2 SATA power headers, 150mm • 1x SATA Cable, one right angle header to one vertical header, 600mm (4 cables) • 1xSGPIO Cable, one 5-pin header to one 5-pin header and one 4-pin header • 1x I^2C Cable, one 5-pin header to one 3 pin header, 600mm These parts in the kit cannot be used with S1200SP: • 1x Front Panel Cable, 920mm • 1x USB Cable, one 2x5 pin header to two USB type A female headers, 950mm, USB 2.0 cable • 1xSATA power adaptor extend cable, 24-pin header to 24-pin header, 630mm	• Spare
 Demo only	iPC - FUP4X35HSBP MM# - 913595 UPC - 00735858220033 EAN - 5032037019279 MOQ - 1	**4x3.5" 6Gb Hard Drive Hot Swap Backplane Spare for P4000 Chassis** Includes: (1) 4x3.5" backplane board	• Spare
 Demo only	iPC - FUP8X35HSBP MM# - 916353 UPC - 00735858222792 EAN - 5032037033480 MOQ - 1	**8x3.5" 6Gb Hard Drive Hot Swap Backplane Spare for P4000 Chassis** Includes: (1) 8x3.5" backplane board	• Spare
 Demo only	iPC - FUP4X35S3HSBP MM# - 936423 UPC - 00735858289979 EAN - 5032037068819 MOQ - 1	**Spare 4x3.5" 12Gb Hard Drive Hot Swap Backplane for P4000 Chassis** Includes: (1) 4x3.5" backplane board	• Spare

Intel® Product Code	Order Information	Product Description	Product Type
 Demo only	iPC - FPWRCABLENA MM# - 879287 UPC - 00735858181129 EAN – 5032037015738 MOQ - 1	**North American Power Cord Spare**	• Spare
 Demo only	iPC - FUPSNHFANE3 MM# - 912772 UPC - 00735858219501 EAN - 5032037016308 MOQ - 1	**92mm Rear Fan Kit** Includes: (1) 92 mm fan (1) rear vent cover Spare for P4000 Pedestal* Chassis	• Spare
 Demo only	iPC - AS1200SPSIOS MM# - 944200 UPC - 00735858306591 EAN - 5032037080057 MOQ - 10	**I/O Shield for Intel® Server Board S1200SPS**	• Spare
 Demo only	iPC - AS1200SPLIOS MM# - 944201 UPC - 00735858306607 EAN - 5032037080064 MOQ - 10	**I/O Shield for Intel® Server Board S1200SPL**	• Spare
 Demo only	iPC - F1UE3PASSHS MM# - 928921 UPC - 00735858262538 EAN - 5032037051767 MOQ - 1	**Passive Heatsink Spare** Includes: (1) passive heatsink and 1 Back Plate For board used in 1u rack chassis	• Spare

Intel® Product Code	Order Information	Product Description	Product Type
 Demo only	iPC - FUP365SNRPS MM# - 911884 UPC - 00735858219433 EAN - 5032037016223 MOQ - 1	**365W Pedestal Fixed PSU Spare** For P4304XXSFCN/P4304XXSHCN chassis	• Spare
 Demo only	iPC - FXX460GCRPS MM# - 915603 UPC - 00735858235846 EAN - 5032037030595 MOQ - 1	**460W Cold Redundant Power Supply Spare 80Plus Gold Efficiency** For P4000XXSFDR chassis	• Spare

6. PacksExtended Warranty

Image	Order Information	Description
	iPC - SVCEWUPSY MM# - 911293 MOQ - 1	**Intel® Server Component Extended Warranty** Extended Warranty SKU for UP Systems Extends Warranty from 3 years to 5 years

Glossary of Terms

A list of Acronyms and Terms used throughout this document

Acronym or Term	Definition	Acronym or Term	Definition
BIK	**B**aseboard **I**n **K**nock-Down-Kit – Integrated System	QSFP	Quad Small Form factor Pluggable
CRPS	Common Redundant Power Supply	RAID	Redundant Array of Independent Drives
EAN	International Article Number (Barcode)	Required Option	Hardware that must be added to the shipping configuration for the system to operate
EMI	Electromagnetic Interference	RMFBU	RAID Maintenance Free Backup Unit
ESRT2	Intel® Embedded Server RAID Technology 2	RMM4 Lite	Intel® Remote Management Module 4 Lite Activation key
FDR Infiniband	Fourteen Data Rate Infiniband	ROC	RAID on Chip
FRU	Field Replaceable Unit	RSTe	Intel® Rapid Stroage Technology
GPGPU	General Purpose computing on Graphics Processing Unit	SAS	Serial Attached SCSI
iPC	Intel® Product Code	SATA	Serial ATA
iPN	Intel® Part Number	SFP	Small Form factor Pluggable
LCP	Intel® Local Control Panel	SKU	Stock Keeping Unit
JBOD	Just a bunch of drives	SSD	Solid State Drive
KDK	Knock-Down-Kit – (Chassis only product)	UPC	Universal Product Code (Barcode)
KVM	Keyboard / Video / Mouse		
MM	Master Material order number		
MOQ	Mimimum Order Quantity		
NVMe	NVM Express – based on Non-Volatile Memory Host Controller Interface Specification (NVMHCI)		
Optional Accessory	Hardware that can be added to the system to enhance the default feature set of the shipping configuration		
PCBA	Printed Cricuit Board Assembly		