Intel<sup>®</sup> Server Board S5000PAL Intel<sup>®</sup> Server Chassis SR1500 Intel<sup>®</sup> Server Chassis SR1550 Intel<sup>®</sup> Server Chassis SR2500

## Spares/Parts List and Configuration Guide

A reference guide to assist customers in ordering the necessary components to configure the Intel® Server Board S5000PAL with the appropriate 1U and 2U Intel Rack Mount Server Chassis.



**Revision 1.5** 

**April, 2007** 

**Enterprise Platforms and Services Marketing** 

## **Revision History**

May '06 – rev 1.0: Initial public release.

June '06 – rev 1.1: added new MM# for BB5000PAL due to PCN # 106415, added link to online configuration tool, updated tool-less rail kit and cable management arm descriptions, added ordering flow charts to appendix. Updated MM# for AXXRJ45DB92. Updated MOQ for SAS RAID accessories.

July '06 – rev 1.2: added new entry for spare 2U hot swap backplane board: FSR2500SASBP. Corrected MM# for AXXIBIOMOD, added new MM# for AXXSCD due to PCN# 106490. Updated MM# for AXXLCPRACK (RoHS compliant version) due to PCN 106158. Added new MM# for ASR2500SIXDRV due to PCN 106588.

August '06 – rev 1.3 removed MM# 880098 (will not be used for product code ADRPCIXRIS). Added new MM numbers for boards & systems due to PCNs 106539, 106535, and 106533. Added product code for Intel® Embedded Server RAID Technology II option (Intel® RAID Activation Key AXXRAKSW5). Updated charts in Appendix 2 to accurately capture integrated sytem SKUs.

November '06 – rev 1.4, updated MM#'s for OEM board 10 packs due to PCN #106856. Added notation to indicate which board & system SKUs ship with the G1 stepping of the chipset. Added ordering information for the boxed Quad-Core Intel® Xeon® Processors.

April '07 – rev 1.5, added reference to new RMM 2 remote management module

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Note 1: in addition to this document, there is a web based tool to assist customers in selecting components for Intel Server Products available here: <a href="http://www.intel.com/go/serverconfigurator">http://www.intel.com/go/serverconfigurator</a>

<u>Note 2</u>: unless otherwise noted, all products listed in this document are RoHS compliant using the server exemption for leaded solder. In cases where both RoHS compliant and non compliant versions of a particular product exists both MM numbers are listed to aid customers in selecting the appropriate version.

### 1. Production Product Order Codes

### 1.1 Production Product Descriptions – Overview

Product based on the Intel® Server Board S5000PAL will be offered in two models at production:

- 1. **Intel® Server Systems (Integrated SKUs)**. Customer orders an integrated system that includes the server board, server chassis, risers, Midplane/backplane, and standard front panel. These Systems are available for specific popular combinations. Then, the customer can choose to add additional options (2<sup>nd</sup> power supply for redundant power, bezels, Intel Remote Server Management Module, etc.) to get to their desired configuration.
- 2. **OEM Building Blocks**. Customer orders the exact parts they need to build any combination of server when their requirements call for a configuration not available as pre-integrated combination. Required options include a server board, a chassis KDK, a full height riser, Midplane or backplane, and a standard front panel or local control panel (LCD). Some of these OEM building block items are not intended for stocking in distribution channel.

### 1.2 Production Intel® Server Systems – (Integrated SKUs)

The following Intel® Server Systems are offered pre-integrated. Each SKU includes the Intel® Server Board S5000PAL together with the chassis and the most widely used key options:

- 1. Intel® Server Chassis SR2500 with Intel® Server Board S5000PAL (2U Intel® Server System)-
  - BRP (Base Redundant Power) version SKU contents:

S5000PAL server board, Intel Server Chassis SR2500 with hot swap SAS/SATA backplane, five 3.5" hard drive carriers, non redundant system cooling, 1 (of 2) 750W power supplies, Passive Midplane, Bridge Board, two slot Low Profile PCI-Express Riser Card, Full Height riser with two PCI-Express and one PCI-X slots, Standard Control Panel, Air duct and baffle, Optical Drive Tray, DH10-to-DB9 Serial A cable, Documentation. (Equivalent to ordering the following building blocks: N/A – this SKU only offered as preconfigured option).

- Optional Accessories: mounting kit (basic rail kit, tool-less slide rail kit with cable mgmt arm option or fixed mount bracket kit), Cosmetic system bezel (two options-standard control panel version or version with LCD cutout), Slim-line optical drive (CDROM, DVD-ROM, or DVD/CDR Drive), USB slim-line Floppy Conversion Kit, RAID activation key, I/O expansion modules (dual GbE, external SAS or IB), 2<sup>nd</sup> power supply module (required for full redundancy), 6<sup>th</sup> drive kit, tape drive mounting kit
- The following are optional kits that would require removing hardware already included in the integrated System: Full Height PCI-X Riser Card (active or passive), SAS Midplane, Intel Local Control panel with LCD support, redundant cooling upgrade kit.
- LX version SKU contents:

S5000PAL server board, Intel Server Chassis SR2500 with hot swap SAS/SATA backplane, five 3.5" hard drive carriers, hot swap and redundant system cooling (6 of 6 fans), 1 (of 2) 750W power supplies, active SAS Midplane (with optional RAID), Bridge Board, two slot Low Profile PCI-Express Riser Card, Full Height riser with two PCI-

Express and one PCI-X slots, Standard Control Panel, Air duct and baffle, Optical Drive Tray, DH10-to-DB9 Serial A cable, Documentation. (Equivalent to ordering the following building blocks: SR2500, S5000PAL, FALSASMP, ASR2500FHR, FSR2500LXFAN, ASR2500FP).

- Optional Accessories: mounting kit (basic rail kit, tool-less slide rail kit with cable mgmt arm option or fixed mount bracket kit), Cosmetic system bezel (two options-standard control panel version or version with LCD cutout), Slim-line optical drive (CDROM, DVD-ROM, or DVD/CDR Drive), USB slim-line Floppy Conversion Kit, RAID activation key, RAID cache mini DIMM, RAID battery backup unit, I/O expansion modules (dual GbE, external SAS, or IB), 2<sup>nd</sup> power supply module (required for full redundancy), 6<sup>th</sup> drive kit, tape drive mounting kit.
- The following are Optional Kits that would require removing hardware already included in the integrated System: Full Height PCI-X Riser Card (active or passive), passive Midplane, Intel Local Control panel with LCD support.
- 2. Intel® Server Chassis SR1500 with Intel® Server Board S5000PAL (1U Intel® Server System)-
  - SAS backplane version SKU contents:

S5000PAL server board, Intel Server Chassis SR1500 with hot swap SAS/SATA backplane with PCI Express based SAS controller, Bridge Board, three 3.5" hard drive carriers, system fans, one (non redundant) 600W power supply, Low Profile PCI-Express riser card, full height PCI-Express riser card, standard control panel, Air duct and baffle, Optical Drive Tray, Documentation. (Equivalent to ordering the following building blocks: S5000PAL, SR1500, ADWPCIEXPR, ASR1500SASBP AXXRACKFP).

- Optional Accessories: mounting kit (basic rail kit, tool-less slide rail kit with cable
  mgmt arm option or fixed mount bracket kit), Cosmetic system bezel (two optionsstandard control panel or version with LCD cutout), Slim-line optical drive
  (CDROM, DVD-ROM, or DVD/CDR Drive), USB floppy drive, I/O expansion
  modules (dual GbE, external SAS or IB).
- The following are Optional Kits that would require removing hardware already included in the integrated System: Full Height PCI-X Riser Card, Passive backplane, Intel Local Control panel with LCD support.
- Passive backplane version SKU contents:

S5000PAL server board, Intel Server Chassis SR1500 with hot swap SAS/SATA passive backplane, Bridge Board, three 3.5" hard drive carriers, system fans, one (non redundant) 600W power supply, Low Profile PCI-Express Riser Card, Full Height PCI-Express Riser Card, Standard Control Panel, Air duct and baffle, Optical Drive Tray, Documentation. (Equivalent to ordering the following building blocks: S5000PAL, SR1500, ADWPCIEXPR, ASR1500PASBP, AXXRACKFP).

Optional Accessories: mounting kit (basic rail kit, tool-less slide rail kit with cable
mgmt arm option or fixed mount bracket kit), Cosmetic system bezel (two optionsstandard control panel or version with LCD cutout), Slim-line optical drive
(CDROM, DVD-ROM, or DVD/CDR Drive), USB floppy drive, I/O expansion
modules (dual GbE, external SAS, or IB).

- The following are Optional Kits that would require removing hardware already included in the integrated System: Full Height PCI-X Riser Card, SAS backplane, Intel Local Control panel with LCD support.
- 3. Intel® Server Chassis SR1550 with Intel® Server Board S5000PAL (1U Intel® Server System)-
  - SAS version SKU contents:

S5000PAL server board, Intel Server Chassis SR1550 with hot swap SAS/SATA backplane, six 2.5" hard drive carriers, system cooling, 1 (of 2) 650W power supplies, active SAS Midplane (with optional RAID), Bridge Board, Low Profile PCI-Express Riser Card, Full Height PCI-Express Riser Card, Mini Control Panel, Air duct and baffle, Documentation. (Equivalent to ordering the following building blocks: S5000PAL, SR1550, ADWPCIEXPR, FALSASMP, ASR1550MINFP).

- Optional Accessories: mounting kit (basic rail kit, tool-less slide rail kit with cable mgmt arm option or fixed mount bracket kit), Cosmetic system bezel (three options- standard control panel version, version with LCD cutout or mini FP version), Slim-line optical drive (CDROM, DVD-ROM, or DVD/CDR Drive), RAID activation key, RAID cache mini DIMM, RAID battery backup unit, I/O expansion modules (dual GbE, external SAS or IB), 2<sup>nd</sup> power supply module (required for full redundancy), additional 2.5" drive carrier blanks to add drives 7 and 8.
- The following are optional kits that would require removing hardware already included in the integrated System: Full height PCI-X riser card, passive midplane.
- Passive version SKU contents:

S5000PAL server board, Intel Server Chassis SR1550 with hot swap SAS/SATA backplane, six 2.5" hard drive carriers, system cooling, 1 (of 2) 650W power supplies, Passive Midplane, Bridge Board, Low Profile PCI-Express Riser Card, Full Height PCI-Express Riser Card, Mini Control Panel, Air duct and baffle, Documentation. (Equivalent to ordering the following building blocks: S5000PAL, SR1550, ADWPCIEXPR, FALPASMP, ASR1550MINFP).

- Optional Accessories: mounting kit (basic rail kit, tool-less slide rail kit with cable mgmt arm option or fixed mount bracket kit), Cosmetic system bezel (three options- standard control panel version, version with LCD cutout, or mini FP version), Slim-line optical drive (CDROM, DVD-ROM, or DVD/CDR Drive), I/O expansion modules (dual GbE, external SAS, or IB), 2<sup>nd</sup> power supply module (required for full redundancy), additional 2.5" drive carrier blanks to add drives 7 and 8.
- The following are optional kits that would require removing hardware already included in the integrated System: Full Height PCI-X Riser Card, SAS Midplane, Intel Local Control panel with LCD support, standard control panel.

### Intel® Server Systems – (Integrated SKUs) Order Codes:

<b>Product Code</b>	UPC	ММ	Description	Qty Per
SR2500ALBRP	00735858184830	881104 885488**	S5000PAL / SR2500 BRP 2U integrated platform. Includes server board, 2U chassis with non-redundant cooling, one (of 2) power supply modules, backplane, two risers and Passive Midplane	1
SR2500ALBRPNA	00735858183727	881894 885498**	S5000PAL / SR2500 BRP 2U integrated platform. Includes server board, 2U chassis with non-redundant cooling, one (of 2) power supply modules, backplane, two risers and Passive Midplane. With North American Power Cord.	1
SR2500ALLX	00735858184847	881102 885489**	S5000PAL / SR2500 LX 2U integrated platform. Includes server board, 2U chassis with hot swap redundant cooling, one (of 2) power supply modules, backplane, two risers and SAS Midplane	1
SR2500ALLXNA	00735858183734	881895 885499**	S5000PAL / SR2500 LX 2U integrated platform. Includes server board, 2U chassis with hot swap redundant cooling, one (of 2) power supply modules, backplane, two risers and SAS Midplane. With North American Power Cord.	1
SR1500AL	00735858183802	881038 885480**	S5000PAL / SR1500 Passive Backplane 1U integrated platform. Includes server board, 1U chassis with passive backplane, and two risers.	1
SR1500ALNA	00735858183680	881893 885482**	S5000PAL / SR1500 Passive Backplane 1U integrated platform. Includes server board, 1U chassis with passive backplane, and two risers. With North American Power Cord.	1
SR1500ALSAS	00735858184229	880902 885481**	S5000PAL / SR1500 SAS 1U integrated platform. Includes server board, 1U chassis with SAS backplane, and risers.	1
SR1500ALSASNA	00735858183697	881892 885483**	S5000PAL / SR1500 SAS 1U integrated platform. Includes server board, 1U chassis with SAS backplane, and risers. With North American Power Cord.	1
SR1550AL	00735858184854	881684 885484**	S5000PAL / SR1550 1U integrated platform with Passive Midplane. Includes server board, 1U chassis with one (of 2) power supply modules, backplane, risers and passive Midplane.	1
SR1550ALNA	00735858183703	881751 885486**	S5000PAL / SR1550 1U integrated platform with Passive Midplane. Includes server board, 1U chassis with one (of 2) power supply modules, backplane, risers and passive Midplane. With North American Power Cord.	1
SR1550ALSAS	00735858184861	881682 885485**	S5000PAL / SR1550 1U integrated platform with SAS Midplane. Includes server board, 1U chassis with one (of 2) power supply modules, backplane, risers and SAS Midplane	1
SR1550ALSASNA	00735858183710	881750 885487**	S5000PAL / SR1550 1U integrated platform with SAS Midplane. Includes server board, 1U chassis with one (of 2) power supply modules, backplane, risers and SAS Midplane. With North American Power Cord.	1

<sup>\*\*</sup> indicates G1 stepping of the chipset

<u>Not included</u>: Processors, Processor heatsinks, DDR2 Fully Buffered DIMM (FBD) main memory, hard drives, and other customer configuration items are not included in above SKUs.

### 1.3 Production Server Board SKU options-

For customers who chose the "building blocks" approach described above in section 1.1, or who utilize their own enclosure, the board will be offered in two versions with differing packaging options:

- 1. Intel® Server Board S5000PAL boxed board version
  - Boxed board SKU contents: server board with CEK spring clip pre-installed, software CD, quick start guide (welcome mat), configuration label
  - Intel 5000P chipset only
- 2. Intel® Server Board S5000PAL / S5000XAL 10 pack OEM board version.
  - OEM board SKU contents: 10 server boards with CEK spring clip pre-installed (no other accessories)
  - Choice of Intel 5000P or 5000X chipset.

Product Code	UPC	MM	Description	Qty Per
S5000PAL	00735858183109	880287	S5000PAL Server Board Single Pack Boxed Board	1
		885478**	(Intel 5000P Northbridge version). (MOQ = 5)	
BB5000PAL	00735858184137	881959	S5000PAL Server Board OEM bulk pack version	10
		885176	(Intel 5000P Northbridge version)	
		885477**		
		887282**		
BB5000XAL	00735858184144	881958	S5000XAL Server Board OEM bulk pack version	10
		885479**	(Intel 5000X Northbridge version). Lead-free.	
		887283**		

<sup>\*\*</sup> indicates G1 stepping of the chipset

## 1.4 Production SR1500 (1U) Chassis Building Block Order Codes

Product Code	UPC	ММ	Description	Qty Per
SR1500	00735858183383	881037	Intel Server Chassis SR1500 (1U) KDK - building block chassis. Contains chassis, fans, power supply, ducting, cables, slim line optical drive tray, and low profile riser, Bridge Board, 3 hard drive carriers, rack handles. No power cord included.	
			NOTE: Requires additional Backplane Kit, Full Height Riser Card, and Control Panel options.	1
SR1500NA	00735858183659	881460	Intel Server Chassis SR1500 (1U) KDK - building block chassis. Contains chassis, fans, power supply, ducting, cables, slim line optical drive tray, and low profile riser, Bridge Board, 3 hard drive carriers, rack handles. Includes North American Power Cord.	
			NOTE: Requires additional Backplane Kit, Full Height Riser Card, and Control Panel options.	1

### 1.4.1 Production SR1500 KDK Required Option #1 – Backplanes (choose one)

Product Code	UPC	ММ	Description	Qty Per
ASR1500SASBP	00735858183741	880524	SR1500 (1U) Hotswap SAS Backplane Kit. Compatible with either SAS or SATA 3.5" hard drives. Kit contents include the following:	
			Backplane with 4 port SAS controller, USB cable (to front panel).	1
ASR1500PASBP	00735858183758	880523	SR1500 (1U) Hotswap Passive SAS/SATA Backplane Kit . Compatible with either SAS or SATA 3.5" hard drives. Kit contents include the following: Hot swap backplane with pass-through capabilities for either onboard SATA ports or a SAS/SATA add-in card, Enclosure management cable, 3 SAS/SATA cables (pre-kitted and length matched to the SATA ports on the server board)	1

# 1.4.2 Production SR1500 KDK Required Option #2 – Full Height Riser (choose one)

				Qty
Product Code	UPC	MM	Description	Per
ADWPCIEXPR	00735858164931	856373	SR1500/1550 (1U) Full Height PCI-Express* riser (one PCI-Express* x8 slot).	1
ADWPCIXR	00735858167895	865412	SR1500/1550 (1U) Full Height PCI-X riser (one PCI-X slot)	1

### 1.4.3 Production SR1500 KDK Required Option #3 – Control Panel (choose one)

Product Code	UPC	ММ	Description	Qty Per
AXXRACKFP	00735858167932	861048	SR1500 Standard Control Panel (unit contains buttons, LEDs, front USB/video).	1
AXXLCPRACK	00735858167949	861305 879580	SR1500 Intel Local Control Panel (unit contains LCD, buttons, navigation buttons, USB). MM# 879580 is RoHS compliant	1

## 1.4.4 Production SR1500 KDK Optional Accessories & Spares

Product Code	UPC	MM	Description	Qty Per
ADWBEZBLACK	00735858169110	865064	SR1400/1500 (1U) - Black Bezel for standard control panel (no cutout for Intel Local Control Panel (LCD)).	10
ADWLCDBEZEL	00735858164993	857591 882435	SR1400/1500 (1U) - Black Bezel with cutout for Intel Local Control Panel (LCD). MM# 882435 is RoHS compliant Note: requires Intel Local Control Panel.	1
ASR1500EESPR	00735858183765	880900	SR1500 Electrical Spares Kit. Contains one each of the following: bridge board, optical drive interposer board with insulator, control panel board, PCI-X and PCIe full height risers, low profile PCIe riser, optical drive cable, control panel cable, USB control panel cable, USB cable for floppy, I2C cable, set of three ganged SATA cables.	1
ASR1500CHSPR	00735858183772	880907	SR1500 - mechanical spares kit. Contains one each of the following: PCI bracket assembly, fan mounting bracket, processor air duct, power supply air baffle, hard drive carrier, USB floppy mounting tray, optical drive tray, optical bay filler panel, control panel mounting tray, metal fillers for rear GCM and I/O module knockouts, metal rack handles (1 pair), top cover screw, thumb screw for backplane,	1
ASR1500PS	00735858183789	880899	SR1500 - spare 600W power supply	1
FSR1500PKG	00735858183796	880898	SR1500 - spare packaging - box & set of cushions.  Note: box has been designed to allow space to include shipping bezel and rails along with the unit. Different than the packaging that ships with the Intel Server Chassis SR1500 Building Blocks or Integrated Systems.	1

## Production SR1550 (1U) Chassis Building Block SKUs -

<b>Product Code</b>	UPC	MM	Description	Qty Per
SR1550	00735858184823	881737	Intel Server Chassis SR1550 (1U) KDK - building block.	
			Kit Content Includes the Following:	
			Base Chassis, 5 - system fans, 1 (of 2) - 650W Power Supply Module, Power Distribution board, hotswap SAS/SATA backplane, Bridge Board, Air Duct and Baffles, USB Cable, slim-line optical drive tray and interposer, 6 2.5" hard disk drive carriers, and low profile PCI-express riser card, rack handles. No power cord.	
			NOTE: Requires additional Midplane Kit, Full Height Riser Option, and Control Panel Option Kit.	1
SR1550NA	00735858183666	881752	Intel Server Chassis SR1550 (1U) KDK - building block. Includes North American power cord.	
			Kit Content Includes the Following:	
			Base Chassis, 5 - system fans, 1 (of 2) - 650W Power Supply Module, Power Distribution board, hotswap SAS/SATA backplane, Bridge Board, Air Duct and Baffles, USB Cable, slim-line optical drive tray and interposer, 6 2.5" hard disk drive carriers, and low profile PCI-express riser card, rack handles.	
			NOTE: Requires additional Midplane Kit, Full Height Riser Option, and Control Panel Option Kit.	1

### 1.4.5 Production SR1550 KDK Required Option #1 – Midplane (choose one):

Product Code	UPC	ММ	Description	Qty Per
FALSASMP	00735858183819	880521	SR1550/SR2500 SAS Midplane with optional Intel® Integrated Server RAID.	
			8 port SAS controller with optional HW RAID upgrade. Note RAID requires RAID activation key and RAID mini DIMM (cache) each sold separately.	1
FALPASMP	00735858183826	880520	SR1550/SR2500 Passive Midplane	
			Compatible with either SAS or SATA hard drives. Kit contents include the following:	
			Passive mid-plane with pass-through capabilities for either onboard SATA ports or a SAS/SATA add-in card, Enclosure management cable, Note: SATA drive cables are not included.	1

# 1.4.6 Production SR1550 KDK Required Option #2 – Full Height Riser Card (choose one)

Product Code	UPC	ММ	Description	Qty Per
ADWPCIEXPR	00735858164931	856373	SR1500/1550 (1U) Full Height PCI-Express* riser (one PCI-Express* x8 slot).	1
ADWPCIXR	00735858167895	865412	SR1500/1550 (1U) Full Height PCI-X riser (one PCI-X slot)	1

## 1.4.7 Production SR1550 KDK Required Option #3 – Control Panel (choose one)

Product Code	UPC	ММ	Description	Qty Per
ASR1550FP	00735858183833	881677	SR1550 Standard Control Panel (unit contains buttons, LEDs, front USB/video). Also includes one metal filler plate for mini control panel location. NOTE: Maximum drive count = 6 with this option.	1
ASR1550MINFP	00735858183840	881675	SR1550 Mini Control Panel (unit contains buttons, LEDs, front USB) No video. NOTE: Required for 8 drive configuration.	1
ASR1550LCP	00735858183857	881676	SR1550 Intel Local Control Panel (unit contains LCD, buttons, navigation buttons, USB). NOTE: Maximum drive count = 6 with this option.	1

## 1.4.8 Production SR1550 KDK Unique Optional Accessories & Spares

Product Code	UPC	ММ	Description	Qty Per
ASR1550SATA	00735858184816	881673	SATA Cable kit for SR1550- set of 6 for when using passive midplane and KDK (5 pack). Note: these cables are included in the passive midplane integrated system SKU	
ASR1550PS	00735858183864	881674	SR1550 650W power supply module spare/upgrade. Required to provide redundant power (1+1).	
FSR1550SAS	00735858183871	881733	SR1550 SAS/SATA hot swap backplane board spare.	1
ASR1550BEZ	00735858183888	879406	SR1550 – black bezel. For use with standard control panel (ASR1550FP). Note: this is a new bezel for SR1550.	1
ASR1550MINBEZ	00735858183895	879211	SR1550 – black bezel. For use with mini control panel. Note: this is a new bezel for SR1550.	
ASR1550LCDBEZ	00735858183901	879209	SR1550 - Black Bezel with cutout for Intel Local Control Panel (ASR1550LCP). Note: requires Intel Local Control Panel. This is a new bezel for SR1550.	
ASR1550EESPR	00735858183918	881678	SR1550 - Electrical spares kit. Contains one each of the following: hot swap backplane board, bridge board, mini front panel board, standard control panel board, one of each riser type (FH PCIe, FH PCI-X, LP PCIe), front panel cable, optical drive cable, USB cable, I2C cable, SATA cable harness (6 total for on board), SAS/SATA cable kit (8 total for add-in card), 2 fans (one of each cable type).	
ASR1550CHSPR	00735858183925	881679		
FXX25HDDCAR	00735858183932	881681	SR1550 2.5" hard drive carrier blank – spare. Can also be used to add up to 2 extra hard drives (max capacity = 8) when the mini front panel is installed.	
FSR1550PKG	00735858183949	881671	·	
FSR1550PDB	00735858183956	881670	SR1550 - Spare power distribution board	1

## 1.5 Production SR2500 (2U) Chassis Building Block SKUs -

<b>Product Code</b>	UPC	MM	Description	Qty Per
SR2500	00735858184809	881105 Intel Server Chassis SR2500 (2U) KDK - building block.		_
			Kit Content Includes the Following:	
		Base Chassis, 3 LX system fans (2x 80mm & 1x 60mm), 1 (of 2) - 750W Power Supply Module, Power Distribution board, hotswap SAS/SATA backplane, Bridge Board, Air Duct and Baffles, DH10-DB9 Serial Cable, slim-line optical drive tray and interposer, 5 hard disk drive carriers, and low profile PCI-express riser card, rack handles. No power cord included.		
			NOTE: Requires additional Midplane Kit, Full Height Riser Option, and Control Panel Option Kit.	1
SR2500NA	00735858183673	881461	Intel Server Chassis SR2500 (2U) KDK - building block. Includes North American power cord	
			Kit Content Includes the Following:	
			Base Chassis, 3 LX system fans (2x 80mm & 1x 60mm), 1 (of 2) - 750W Power Supply Module, Power Distribution board, hotswap SAS/SATA backplane, Bridge Board, Air Duct and Baffles, DH10-DB9 Serial Cable, slim-line optical drive tray and interposer, 5 hard disk drive carriers, and low profile PCI-express riser card, rack handles.	
			NOTE: Requires additional Midplane Kit, Full Height Riser Option, and Control Panel Option Kit.	1

## 1.5.1 Production SR2500 KDK Required Option #1 – Midplane (choose one):

Product Code	UPC	MM	Description	
FALSASMP	00735858183819	880521	880521 SR2500 (2U) SAS Midplane with optional Intel® Integrated Server RAID.	
			8 port SAS controller with optional HW RAID upgrade. Note RAID requires RAID activation key and RAID DIMM (cache) each sold separately.	1
FALPASMP	00735858183826	880520	SR2500 (2U) Passive Midplane	
			Compatible with either SAS or SATA hard drives. Kit contents include the following:	
			Passive mid-plane with pass-through capabilities for either onboard SATA ports or a SAS/SATA add-in card, Enclosure management (I2C) cable, Note: no SATA cables are included.	

# 1.5.2 Production SR2500 KDK Required Option #2 – Full Height Riser Card (choose one)

Product Code	UPC	ММ	Description	Qty Per
ASR2500FHR	00735858183963	880515	SR2500 (2U) Full Height PCI-Express* riser card (two PCI-Express* slots, one PCI-X slot).	1
ADRPCIXRIS	00735858167918	863135	SR2500 (2U) Full Height PCI-X riser card (three PCI-X slots).	1
ADRACTRIS	00735858165037	856546	SR2500 (2U) Full Height PCI-X "active" high performance riser card (three PCI-X slots)	1

### 1.5.3 Production SR2500 KDK Required Option #3 – Control Panel (choose one)

Product Code	UPC	ММ	Description	Qty Per
ASR2500FP	00735858183970	881452	SR2500 Standard Control Panel (unit contains buttons, LEDs, front USB/video).	1
ASR2500LCP	00735858183987	881264	SR2500 Intel Local Control Panel (unit contains LCD, buttons, navigation buttons, USB).	1

## 1.5.4 Production SR2500 KDK Unique Optional Accessories & Spares

Product Code	UPC	MM	Description	
ASR2500SATA	00735858183994	880283	SR2500- Set of five length-matched individual SATA cables bundled together. This kit is designed to be used to cable from the baseboard SATA ports to the passive Midplane. Note: this cable kit is already included with the SR2500ALBRP SKU. (5 Pack).	
ASR2500SAS1	00735858184007	880280	SR2500- SAS PCI Cable Kit (set of two different ganged cables). Supports cabling from a SAS add in-card in the Full Height Slot to the passive Midplane only (5 Pack).	5
ASR2500SAS2	00735858184014	881261	SR2500- SAS PCI Cable Kit. Supports cabling from add-in PCI card with SFF-8484 ganged connector in the full height slot to the passive Midplane only. This cable is recommended for use with the Intel RAID controller SRCSAS18E (5 Pack).	
FSR2500LXFAN	00735858184021	880525	525 SR2500 LX hot swap redundant fan spare kit. Contains 3 fans (1 x 60mm, 2 x 80mm). Notes: Not compatible with BRP SKU fans. This SKU can also be used to add 2 <sup>nd</sup> bank of fans upgrade the KDK SKU to achieve redundant cooling.	
FSR2500BRPFAN	00735858184038	882057	SR2500 BRP Non redundant fan spare kit.  Contains 2 fans, one of each type (1 x 60mm, 1 x 80mm).  Not compatible with SR2500 LX SKU fans.	
ASRLXFANS	00735858184045	881263	BRP to LX Fan upgrade kit. This is a complete set of redundant/hot swap fans (six total) along with hot swap fan bracket and cabling. The upgrade requires removing the BRP fans and fan brackets and replacing the entire assembly. BRP and LX fans are not interchangeable.	
ASR2500PS	00735858184052	881262	SR2500 750W power supply module spare/upgrade. 1 Required to provide redundant power (1+1).	
ADRBEZBLACK	00735858165129	857675	SR2400/SR2500 – black bezel. For use with standard control panel (no LCP cutout).	1

ADRLCDBEZEL	00735858165082	857586	SR2400/SR2500 (2U) - Black Bezel with cutout for Intel Local Control Panel (LCD). Note: requires Intel Local Control Panel.	1
ADRTAPEKIT	00735858165075	856359 882437	SR2400/SR2500 – SCSI tape mounting kit. Contains tape tray, drive power cable (which connects to backplane) and terminated SCSI cable. Notes: this kit requires a 3 <sup>rd</sup> party SCSI PCI add-in card with SR2500. Either this option or the 6 <sup>th</sup> SAS/SATA drive kit can be installed (both can not supported simultaneously). (MM# 882437 is RoHS compliant)	
ASR2500SATAPE	00735858184069	881260	SR2500 – SAS/SATA tape drive mounting kit. Contains tape drive mounting tray, one SATA/SAS cable and one power cable for tape drive (which connects to backplane). Note: either this option or the 6 <sup>th</sup> SAS/SATA drive kit can be installed (both can not supported simultaneously).	1
ASR2500SIXDRV	00735858184076	881259 885929	SR2500 - 6th SAS / SATA drive kit. Contains one 3.5" drive carrier, backplane board insert, & cables (one power and one SAS/SATA) to enable a sixth hot swap SAS or SATA drive. Note: either this option or a Tape drive kit can be installed (both can not supported simultaneously).	1
ASR2500EESPR	00735858184083	881265	SR2500 Electrical spares kit. Contains one each of the following: hot swap backplane board, 6 <sup>th</sup> drive backplane board and cables, SAS midplane, passive midplane, bridge board, front control panel board, optical drive interposer board, PCI-X active riser, PCI-X passive riser, PCIe FH riser, PCIe low profile riser, optical drive (IDE) cable, redundant fan cable bracket assembly, USB floppy cable, serial cable, I <sup>2</sup> C cable, one set of each type SATA/SAS cables, tape drive power cable, 80mm BRP fan, 80mm LX fan, 60mm BRP fan, 60mm LX fan, LCP interposer board.	
ASR2500CHSPR	00735858184090	880281	SR2500 - Mechanical spares kit. Contains spare PCI bracket assembly, BRP fan mounting structure, LX fan mounting structure, power supply air baffle, CPU duct assembly, hard drive carrier, hard drive carrier blank (for 6 <sup>th</sup> drive/tape bay), 6 <sup>th</sup> drive filler panel, metal fillers for GCM and I/O module knockouts, optical drive tray, optical drive bay filler panel, USB floppy adapter tray for optical bay, HDD to USB floppy adapter tray, tape drive mounting tray, standard control panel mounting tray, power supply blank filler, metal handles (one pair), top cover screw, midplane thumb screw.	1
FSR2500PKG	00735858184106	881106	SR2500 - spare packaging - box & set of cushions. box designed to allow more space to include shipping bezel and rails along with the unit. Different then the packaging that ships with the Intel Server Chassis SR2500 Building Blocks or Integrated Systems.	1
FSR2500LPR	00735858184113	880516	SR2500 Low-Profile Riser Spare. Features two PCI Express slot and chassis intrusion switch. Note: this a spare only, already included with all chassis and systems configurations.	1
FSR2500PDB	00735858184120	881107	SR2500 - Spare power distribution board assembly.	1
FSR2500SASBP	00735858189590	885446	SR2500 – spare hot swap SAS/SATA backplane board only.	1

## 1.6 Production New Common Accessories & Spares

New spares and accessories used in more than one S5000PAL chassis configuration:

Product Code	educt Code UPC MM Description		Description	Qty Per
FPWRCABLENA	00735858181129	879287	North American power cord for SR1500, SR1550 & SR2500, 59 inches long, rated at 13A and 105 °C. RoHS compliant. This is the same cord included in the "NA" SKUs.	
AXXUSBFLOPPY	00735858183260	881267	Internal slim-line floppy kit. Works in SR2500 or SR1500 only Includes USB cable, slim floppy mounting tray for use in optical bay, hard drive to floppy converter tray, slim-line USB floppy drive.	
AXXDVDROM	00735858184717	881097	Slim-line DVD-ROM, single pack with mounting screws.	1
AALIO	00735858184724	881739	S5000PAL/S5000XAL I/O shield/gasket kit. For use in 3 <sup>rd</sup> party chassis only. Note this is not included with either the boxed or OEM board. (MOQ = 50)	50
FALBRIDGE	00735858184731	880519	Spare bridge board for use with SR1500/SR15550/SR2550 chassis. Connects baseboard to Midplane (in SR1550/2500) or backplane in SR1500. (MOQ = 30)	30
AXXBASICRAIL	00735858184748	881096	SR1500/1550/2500 Basic slide rail kit. Does not support Cable Management Arm.	1
FXX1UFAN	00735858184243	881101	SR1500/SR1550 1U fan spare. Contains two 56mm fans, one with short cable, and one with long cable.	
ASR15XXLPRIS	00735858184236	880522	SR1500/SR1550 1U low profile riser card spare- provides one x8 PCI Express slot with chassis intrusion switch	
AXXRAK18E	00735858180443	877661	Intel® RAID Activation Key for SAS Midplane in SR1550/SR2500. Enables full intelligent SAS RAID solution engineered around the Intel® 80333 I/O Processor @ 500MHz. (MOQ = 5). Note: enabling RAID capability also requires mini DIMM – Intel AXXMINIDIMM MM# 881258 (or qualified 3 <sup>rd</sup> party mini DIMM).	
AXXRSBBU3	00735858181853	883471	, , , , , , , , , , , , , , , , , , , ,	
AXXMINIDIMM	00735858184762	881258	128 MB Mini DIMM registered DDR-2 for RAID cache in SR2500/SR1550. (MOQ = 5). Note: enabling RAID capability also requires Intel RAID Activation Key–AXXRAK18E.	
AXXGBIOMOD	00735858184779	880518	Intel Server Board S5000PAL Dual Gigabit Ethernet I/O Expansion Module	
AXXSASIOMOD	00735858184786	880517	Intel Server Board S5000PAL External 4 port SAS I/O Expansion Module	
AXXIBIOMOD	00735858185219	881891	Intel Server Board S5000PAL InfiniBand I/O Expansion Module.	
AXXRMM2	00735858192408	888501	Module.  Intel® Remote Management Module 2 – single pack: Provides remote access and management contro. Enabling drive redirection and KVM over IP via dedicated NIC for concurrent sessions to facilitate remote operation and repair.	

AXXRAKSW5	00735858181860	878958	Intel® RAID Activation Key AXXRAKSW5. Intel®	5
			Embedded Server RAID Technology II option. Adds	
			optional driver-based RAID 5 capability to on-board SATA	
			ports or SAS backplane in SR1500 chassis only. (Note: not	
			compatible with SAS midplane for SR1550/SR2500).	

## 1.7 Production Re-use Common Accessories & Spares

Existing spares and accessories used in more than one S5000PAL chassis configuration:

Product Code	UPC	ММ	Description	Qty Per
FXX10DVCARBLK	00735858181938	880265	Black 3.5" hot swap drive carrier spare. For use with SR1500/2500.	
AXXSCD	00735858164269	856519 880561 885100	Slim line CD drive, bare drive plus 4 mounting screws. (MM# 880561 and 885100 are RoHS compliant)	1
AXXDVDCDR	00735858164962	857593 880559	DVD/CDR slim line drive. Supports DVD/CD and CD write, bare drive plus 4 mounting screws.  (MM# 880559 is RoHS compliant)	1
AXXHERAIL	00735858164948	881328	, ,	
AXXRACKCARM	00735858167970	881329	9 SR1500/SR1550/SR2500 - Cable management arm. For use with AXXHERAIL MM# 881328	
AXXBRACKETS	00735858168618	863262	Fixed Mount Brackets.  Set of brackets to hard mount chassis to rack. Supports 4 post mounting and 2 post center mounting.	
ADWPCIEXPR	00735858164931	856373	SR1500/SR1550 (1U) Full Height PCI-Express* riser (one PCI-Express* x8 slot). Note: this riser is included in the integrated systems.	
ADWPCIXR	00735858167895	865412	SR1500/SR1550 (1U) Full Height PCI-X riser (one PCI-X slot)	
AXXRJ45DB92	735858155212	847595 881944	Serial cable adapter kit. Contains two serial cable converter dongles (RJ45 to DB9) one for DSD and one for DCD (Modem). The kit also includes one serial ribbon cable for cabling 2 <sup>nd</sup> serial port from the baseboard. Note: this ribbon cable is not used with the Intel Server Chassis SR1500/1550/2500.  MM# 881944 is RoHS compliant.	1

## 2. Intel RAID Controller Options

In addition to the Intel® Integrated Server RAID option offered in the SR1550 and SR2500 systems, the following Intel® RAID Controllers are validated with the S5000PAL/S5000XAL product family:

Product Code	ММ	Description	Qty Per
SRCS28X	866296	Intel® RAID Controller SRCS28X - 64/133MHz PCI-X, 8 port SATA RAID Controller - Intel® 80331 IOP @ 250MHz, 128MB embedded memory. Compatible with Battery SKU: AXXRIBBU1	5
SRCS16	858577	Intel RAID controller SRCS16 - 64/66 MHz PCI, 6 port SATA RAID Controller - Intel® 80302 IOP @ 100 MHz, 64MB embedded memory	5
SRCSAS18E	874656	Intel RAID controller SRCSAS18E SAS RAID controller. PCI-E x8, 8P SAS RAID Controller - Intel® 80333 IOP @ 500MHz, Supports 128 MB-1GB DDR2 or AXXRPCM2	5
SRCSAS144E	882019	Intel RAID Controller SRCSAS144E SAS RAID controller. PCI-e, 4-port internal, 4P external with 128MB embedded cache memory.	5

Note: to use these (or any other 3<sup>rd</sup> party SAS or SATA RAID card) with an Intel Server Chassis the passive version of the midplane or backplane must be ordered.

## 3. Appendix 1: Boxed Processor Support

The Intel® Server Board S5000PAL supports the Dual–Core Intel® Xeon® processor 5000 sequence (5000 & 5100 series) and the Quad-Core Intel® Xeon® processors (5300 series).

The following boxed processors are designed and validated for use with the SR2500 (2U) and SR1500/SR1550 (1U) chassis:

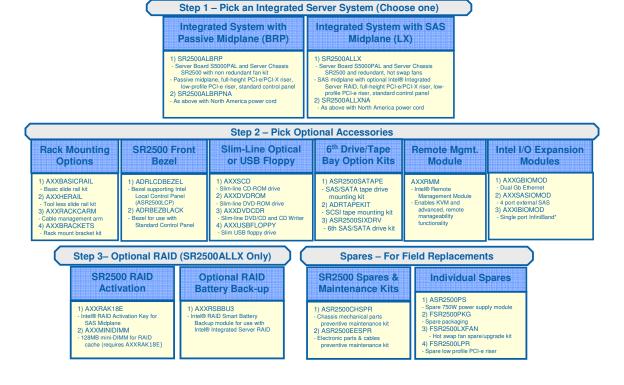
Heatsink Type	2U Passive Heatsink	1U Heatsink
Product Code (Dual-Core Intel Xeon Processor 5000 series)	BX80555xxxxP	BX80555xxxxA
Product Code (Dual-Core Intel Xeon Processor 5100 series)	BX80556xxxxP	BX80556xxxxA
Product Code (Quad-Core Intel Xeon Processor 5300 series)		BX80563xxxxxA
Notes	For use in 2U rack mount chassis which provide ducted airflow to the heatsink.	The fan must be removed prior to use in a 1U chassis.
Compatible Intel® Server Chassis	SR2500	SR1500 / SR1550

Note: "xxxx" in product code represents the processor number, for example 5150 is the 2.67GHz 5100 series processor, E5320 is the 1.86 GHz 5300 series processor.

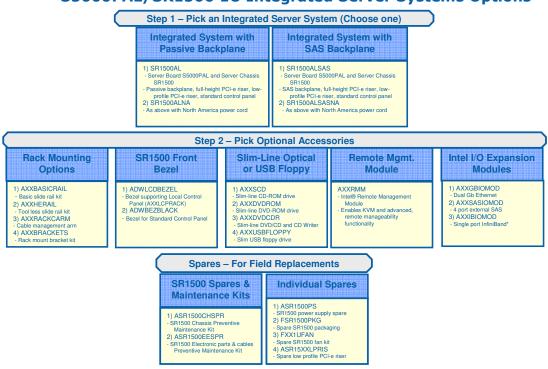
See  $\underline{\text{http://support.intel.com/support/motherboards/server/s5000pal/compat.htm}} \text{ for more information on supported processors.}$ 

## 4. Appendix 2: Order Code Summary-Integrated Systems

### S5000PAL/SR2500 1U Integrated Server Systems Options



### S5000PAL/SR1500 1U Integrated Server Systems Options

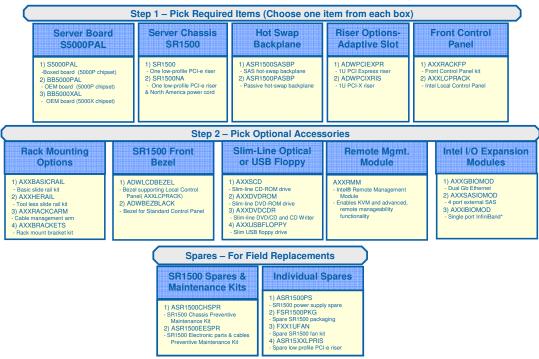


### S5000PAL/SR1550 1U Integrated Server Systems Options

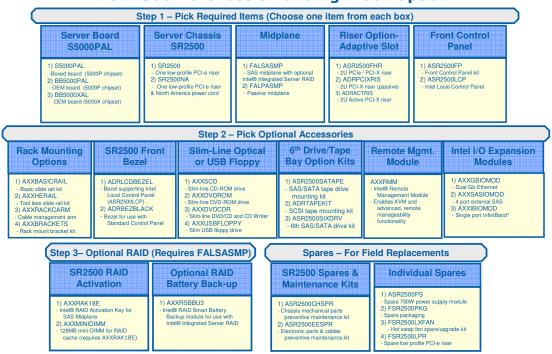
#### Step 1 – Pick an Integrated Server System (Choose one) Integrated System with Integrated System with **Passive Midplane** SAS Midplane SR1550AL Server Board S5000PAL and Server Chassis SR1550 SR1550 Passive miloplane, full-height PCI-e riser, low-profile PCI-e riser, mini control panel SR1550ALNA As above with North America power cord SR1550ALSAS Server Board \$5000PAL and Server Chassis SR1550 SAS midplane with optional Intel® Integrated Server RAD, full-height PCI-or liser, low-profile PCI-or riser, indicontrol panel SR1550ALSASNA As above with North America power cord Step 2 - Pick Optional Accessories Slim-Line Optical Intel I/O Expansion **Rack Mounting** SR1550 Front Remote Mgmt. or USB Floppy Options Modules Bezel Module ASR1550LCDBEZ Bezel supporting Local Control Panel (ASR1550LCP) ASR1550BEZ Bezel for standard control panel ASR1550MINBEZ Bezel for mini control panel AXXRMM - Intel® Remote Management 1) AXXBASICRAIL 1) AXXSCD - Slim-line CD-ROM drive 1) AXXGBIOMOD - Dual Gb Ethernet 2) AXXSASIOMOD - Basic slide rail kit 2) AXXHERAIL - Tool less slide rail kit 3) AXXRACKCARM - Slim-line CD-ROM drive 2) AXXDVDROM - Slim-line DVD-ROM drive 3) AXXDVDCDR - Slim-line DVD/CD and CD Writer Intel® Remote Management Module - Enables KVM and advanced, remote manageability functionality - 4 port external SAS 3) AXXIBIOMOD Single port InfiniBand\* AXXBRACKETS Rack mount bracket kit Step 3- Optional RAID (SR1550ALSAS Only) Spares - For Field Replacements SR1550 RAID SR1550 Spares & **Optional RAID** Individual Spares Activation Battery Back-up Maintenance Kits 1) ASR1550PS 1) ASR1550PS -650W power supply module 2) FSR1550PKG -Spare SR1550 packaging 3) FXX1UFAN -Spare 1U fan kit 4) ASR15XXLPRIS -Spare low profile PCI-e riser AXXRSBBU3 - Intel® RAID Smart Battery Backup module for use with Intel® Integrated Server RAID 1) AXXRAK18E - Intel® RAID Activation Key for 1) ASR1550CHSPR Maintenance Kit 2) ASR1550EESPR - SR1550 Electronic parts & cables Preventive Maintenance Kit 2) AXXMINIDIMM 2) AXXMINIDIMM 128MB mini-DIMM for RAID cache (requires AXXRAK18E)

## 5. Appendix 3: Order Code Summary-Building Blocks

### **SR1500 1U Chassis Building Block Option**



### **SR2500 2U Chassis Building Block Option**



### SR1550 1U Chassis Building Block Option

#### Step 1 – Pick Required Items (Choose one item from each box) Server Board **Server Chassis** Midplane **Riser Option-Front Control** S5000PAL SR1550 **Adaptive Slot** Panel 1) FALSASMP - SAS midplane with optional Intel® Integrated Server RAID 2) FALPASMP - Passive midplane 1) SR1550 - One low-profile PCI-e riser 2) SR1550NA - One low-profile PCI-e riser & North America power cord 1) ASR1550FP - Front control panel 2) ASR1550MINFP - Mini control panel 3) ASR1550LCP 1) ADWPCIEXPR - 1U PCI Express riser 2) ADWPCIXRIS - 1U PCI-X riser 1) S5000PAL -Boxed board (5000P chipset) 2) BB5000PAL - OEM board (5000P chipset) 3) BB5000XAL - OEM board (5000X chipset) Intel Local Control Panel

#### Step 2 – Pick Optional Accessories Slim-Line Optical **Rack Mounting** SR1550 Front Remote Mgmt. Intel I/O Expansion **Options** Bezel or USB Floppy Module Modules ASR1550LCDBEZ Bezel supporting Local Control Panel (ASR1550LCP) ASR1550BEZ Bezel for standard control panel ASR1550MINBEZ Bezel for mini control panel AXXSCD - Slim-line CD-ROM drive AXXDVDROM Slim-line DVD-ROM drive AXXDVDCDR AXXDVDCDR - Slim-line DVD/CD and CD Writer AXXRMM - Intel® Remote Management Module - Enables KVM and advanced, remote manageability functionality 1) AXXGBIOMOD - Dual Gb Ethernet 1) AXXBASICRAIL - Basic slide rail kit 2) AXXHERAIL - Tool less slide rail kit 3) AXXRACKCARM Dual Gb Ethernet AXXSASIOMOD 4 port external SAS AXXIBIOMOD Single port InfiniBand\* - Cable management arm 4) AXXBRACKETS - Rack mount bracket kit

Step 3- Optional RAID (Requires FALSASMP)		Spares – For Field Replacements	
SR1550 RAID Activation	Optional RAID Battery Back-up	SR1550 Spares & Maintenance Kits	Individual Spares
1) AXXRAK18E - Intel® RAID Activation Key for SAS Midplane 2) AXXMINIDIMM - 128MB mini-DIMM for RAID cache (requires AXXRAK18E)	1) AXXRSBBU3 - Intel® RAID Smart Battery Backup module for use with Intel® Integrated Server RAID	ASR1550CHSPR     SR1550 Chassis Preventive     Maintenance Kit     ASR1550EESPR     SR1550 ElsePre     SR1550 Electronic parts & cables     Preventive Maintenance Kit	1) ASR1550PS     - 650W power supply module     2) FSR1550PKG     - Spare SR1550 packaging     3) FXX1UFAN     - Spare 1U fan kit     4) ASR15XXLPRIS     - Spare low profile PCI-e riser