Intel® Server Board S2400LP Family
Intel® Server System H2000LP Family
Intel® Compute Module HNS2400LP Family
Intel® Server Chassis H2000 Family
Spares/Accessories List and Configuration Guide

A reference guide to assist customers in ordering the necessary components to configure the Intel® Server Board S2400LP and the appropriate 2U Intel Rack Mount Server Systems

Revision 2.0

December 2013

Platform Collaboration and Systems Marketing

Revision History

October'11 – Rev 0.9 – Production draft

December'11 – Rev 0.95 – Production Candidate

February'12 – Rev 1.0 – Production Candidate 2

March'12 – Rev 1.1 – Remove PCSD InfiniBand Gen3 I/O modules

May'12 – Rev 1.2 – Production Version

September'12 – Rev 1.3 – Product SKU update

December'12 – Rev 1.4 – Product SKU update

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1.   System Product Order Codes

1.1   Product Descriptions – Overview

Product based on the Intel® Server Board S2400LP is offered in a variety of options to provide the flexibility and facility for customers.

BIK is offered as integrated systems at launch, including drive carriers and power supplies configuration.

Board is offered as 10-pack at launch.

Chassis is offered as KDK at launch. It includes the power supply, but Compute Module is excluded.

Compute Module can be ordered separately for both single-pack and 10-pack.

1.2   Summary Chart

For a quick overview, all configuration options are summarized on below chart. Reference details below in this document for MM numbers, configuration details, and product order codes.

PCSD Romley Chassis and Systems shipped to the US & Canada contain North American power cords. North American customers no longer need to order skus ending in "NA" to receive power cords on Romley products.

BIK:

Pcode	FF	HDD	# of HDD		Power Supply	Rails	Compute Module	Available Time
H2312LPJR	2U	3.5	12		2 x 1200W AC	Value	4 x HNS2400LP	Launched
H2216LPJR	2U	2.5		16	2 x 1200W AC	Value	4 x HNS2400LP	Launched

KDK:

Pcode	FF	HDD	# of HDD		Power Supply	Rails	Compute Module	Available Time
H2312XXJR	2U	3.5	12		2x1200W AC	Value	Not included	Non TTM
H2216XXJR	2U	2.5		16	2x1200W AC	Value	Not included	Non TTM
H2312XXKR	2U	3.5	12		2x1600W AC	Value	Not included	Non TTM
H2216XXKR	2U	2.5		16	2x1600W AC	Value	Not included	Non TTM

Compute Module:

Pcode	FF	Integrated InfiniBand	rIOM Riser / Carrier	RMM4 Lite Key	Intel® RAID C600 Upgrade Key	Available Time
HNS2400LP	1U Compute Module	No	Not included	Not included	Not included	Launched

Board:

Pcode	FF	Integrated InfiniBand	rIOM Riser / Carrier	RMM4 Lite Key	Intel® RAID C600 Upgrade Key	Available Time
BBS2400LP	6.8'' W x 16.6'' L	No	Not included	Not included	Not included	Launched

1.3   Available Production Board Order Codes

Image	Product Code MM UPC EAN MOQ	Description
	BBS2400LP 919030 735858234986 5032037029735 10	Production Intel® Server Board S2400LP (OEM 10-pack version) - 6.8'' W x 16.6'' L - 12x DIMMs support DDR3/DDR3L LR/U/R-DIMMs - 4x 3Gb/s SATA/SAS ports from SCU, 1x 6Gb/s SATA DOM ports from AHCI - 1 PCIe3 x16 capable slot and 1 PCIe3 x8 capable slot (not PCIe Sig compatible) - Dual 1GbE - Compatible with Intel® Xeon® processor E5-2400 or Intel® Xeon® processor E5-2400 v2 series.

1.4   Available Production System Order Codes

Image	Product Code MM UPC EAN MOQ	Description
 *Demo only	H2312LPJR 919008 735858235020 5032037029773 1	The Production Intel® Server System H2312LPJR - 2U H2312XXJR Chassis (Blank Node Filler FH2000BNF excluded) - 4x HNS2400LP Compute Module **Note**: There are no required PCSD components to make this system functional.
 *Demo only	H2216LPJR 919014 735858235006 5032037029759 1	The Production Intel® Server System H2216LPJR - 2U H2216XXJR Chassis (Blank Node Filler FH2000BNF excluded) - 4x HNS2400LP Compute Module **Note**: There are no required PCSD components to make this system functional.

1.5 Available Production Chassis Order Codes

Image	Product Code MM UPC EAN MOQ	Description
*Demo only	H2312XXJR 919020 735858243285 5032037037921 1	The Production Intel® Server Chassis H2312XXJR - 2U H2000 Chassis (front panel FH2000FPANEL included, Power Distribution Board FXXCRPSPDB included) - 2x 1200W Platinum PSU (FXX1200PCRPS) - 12x 3.5'' Hot-swap HDDs support (carriers FXX35HSADPB included, backplane FHW12X35HSBP) - 4x Blank Node Filler (FH2000BNF) - Basic rack rail (AXXELVRAIL)
*Demo only	H2216XXJR 919021 735858243278 5032037037914 1	The Production Intel® Server Chassis H2216XXJR - 2U H2000 Chassis (front panel FH2000FPANEL included, Power Distribution Board FXXCRPSPDB included) - 2x 1200W Platinum PSU (FXX1200PCRPS) - 16x 2.5'' Hot-swap HDDs support (carriers FXX25HSCAR included, backplane FHW16X25HSBP) - 4x Blank Node Filler (FH2000BNF) - Basic rack rail (AXXELVRAIL)
*Demo only	H2312XXKR 919022 735858243292 5032037037938 1	The Production Intel® Server Chassis H2312XXKR - 2U H2000 Chassis (front panel FH2000FPANEL included, Power Distribution Board FXXCRPSPDB included) - 2x 1600W Platinum PSU (FXX1600PCRPS) - 12x 3.5'' Hot-swap HDDs support (carriers FXX35HSADPB included, backplane FHW12X35HSBP) - 4x Blank Node Filler (FH2000BNF) - Basic rack rail (AXXELVRAIL)

Image	Product Code MM UPC EAN MOQ	Description
*Demo only	H2216XXKR 919023 735858243308 5032037037945 1	The Production Intel® Server Chassis H2216XXKR - 2U H2000 Chassis (front panel FH2000FPANEL included, Power Distribution Board FXXCRPSPDB included) - 2x 1600W Platinum PSU (FXX1600PCRPS) - 16x 2.5'' Hot-swap HDDs support (carriers FXX25HSCAR included, backplane FHW16X25HSBP) - 4x Blank Node Filler (FH2000BNF) - Basic rack rail (AXXELVRAIL)

1.6 Available Production Compute Module Order Codes

Image	Product Code MM UPC EAN MOQ	Description
*Demo only	HNS2400LP 918380 735858235044 5032037029797 1	The Production Intel® Compute Module HNS2400LP - Intel® Server Board S2400LP included - Node Power Board FH2000NPB included - Bridge Board FHWLPBGB included - Slot1 riser card FHW1U16RISER included - 3x 4056 dual rotor fans FXX4056DRFAN included - 1U passive heatsinks (one FXXEA90X90HS for front, and one FXXCA90X90HS for rear) included - Airduct included - 1U node tray included

2. Spares and Accessories Order Codes
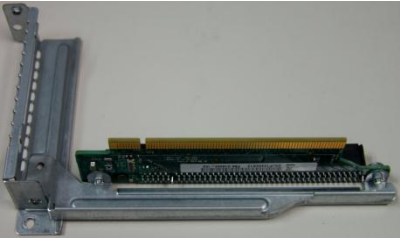
2.1 General Spares and Accessories

Image	Product Code MM UPC EAN MOQ	Description
*Demo only	AXXRMM4LITE 911660 00735858219297 5032037014946 1	Activation key for advanced management features
*Demo only	AXXRMM4IOM 918249 735858243254 5032037037891 1	PCI Express x16 (164 pin) rIOM riser and rIOM carrier board kit for supporting dedicate RMM4 NIC port and containing Intel® I/O module for HNS2600JF and HNS2400LP compute module family **Note**: The AXXRMM4LITE is NOT included. It must be ordered seperately for advanced management features.
*Demo only	FHW1U16RISER 916729 735858223003 5032037019286 10	1U PCI Express x16 riser card for supporting in-board low-profile PCIe adding card of Slot1 on HNS2600JF, HNS2600WP and HNS2400LP compute module family
*Demo only	FXX4056DRFAN 918254 735858243469 5032037038102 10	40x56mm Dual Rotor Fan spare

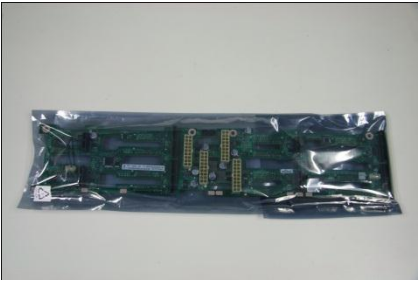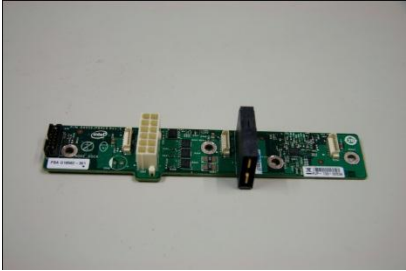| Image	Product Code MM UPC EAN MOQ	Description
*Demo only	FXX1200PCRPS 915605 735858225137 5032037035071 1	1200W AC Common Redundant Power Supply FXX1200PCRPS 80Plus Platinum-Efficiency
*Demo only	FXX1600PCRPS 915606 735858243650 5032037038294 1	1600W AC Common Redundant Power Supply FXX1600PCRPS 80Plus Platinum-Efficiency **Note**: Available in Q3'12
*Demo only	FXXCA90X90HS 918255 735858235075 5032037029827 2	1U Standard Cu/Al 90mm x 90mm Heat Sink (Rear Heat Sink)
*Demo only	FXXEA90X90HS 918256 735858235082 5032037029834 2	1U Standard Ex-Al 90mm x 90mm Heat Sink (Front Heat Sink)
*Demo only	FHW12X35HSBP 920830 735858246729 5032037041188 1	Spare 12 x 3.5'' backplane for H2000 Chassis family
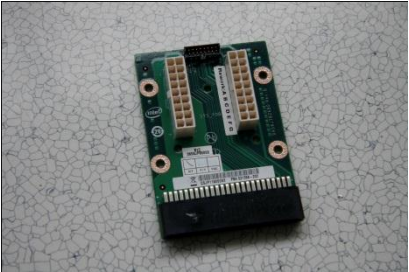
Image	Product Code MM UPC EAN MOQ	Description
 *Demo only	FHW16X25HSBP 920829 735858246736 5032037041195 1	Spare 16 x 2.5'' backplane for H2000 Chassis family
 *Demo only	FH2000BNF 920831 735858246880 5032037041881 10	Spare Blank Node Filler for H2000 Chassis family
 *Demo only	FH2000NPB 920832 735858246743 5032037041201 10	Spare Node Power Board for H2000 Chassis family
 *Demo only	FHWLPBGB 920834 735858246774 5032037041232 10	Spare Bridge Board for H2000LP System
 *Demo only	FXXCRPSPDB 921250 735858246750 5032037041218 10	Spare Power Distribution Board for Common Redundant Power Supply 1200W and 1600W of H2000 Chassis
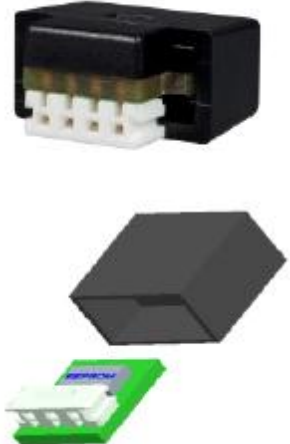
Image	Product Code MM UPC EAN MOQ	Description
*Demo only	FH2000FPANEL 920835 735858246873 5032037041874 1	Spare front control panel kit for H2000 Chassis family
*Demo only	FH2000LPMKIT 919034 735858235068 5032037029810 1	Chassis Maintenance Kit FH2000LPMKIT (for Intel® Server System H2000LP family) including (2) Node tray of HNS2400LP, (2) Airduct of HNS2400LP, Plastic cover of bridge board, Cable kit and Screw kit
*Demo only	FXX25HSCAR 918807 735858241182 5032037035910 8	Spare 2.5" HDD hot swap carriers
*Demo only	FXX35HSADPB 912771 00735858219495 5032037016391 8	Spare 3.5" HDD hot swap carriers
*Demo only	AXXELVRAIL 920970 00735858244367 5032037038980 1	

Image	Product Code MM UPC EAN MOQ	Description
*Demo only	FPWRCABLENA 879287 735858181129 5032037015738 1	North American Power Cord Spare
*Demo only	A2UBEZEL 918086 735858241137 5032037035880 1	2U locking bezel with two branding clip-on inserts

2.2   Dynamic Key Spares and Accessories

Image	Product Code MM UPC EAN MOQ	Description
	When no key installed:	4 SATA channels active with SW RAID 'basic' which includes RSTe SW RAID 0/1/10/5 + LSI SW RAID 0/1/10
	RKSATA4R5 916346 735858238861 50320370336405	Intel® RAID C600 Upgrade Key RKSATA4R5 enables LSI SATA SW RAID 5, Black
*Demo only	RKSAS4 916349 735858238892 50320370336715	Intel® RAID C600 Upgrade Key RKSAS4 activates 4 SAS ports and includes RSTe SW RAID 0/1/10 (no RAID 5) and LSI SW RAID 0/1/10, Green
	RKSAS4R5 916350 735858238908 50320370336885	Intel® RAID C600 Upgrade Key RKSAS4R5 activates 4 SAS ports and includes RSTe SW RAID 0/1/10 (no RAID 5) and LSI SW RAID 0/1/10/5 (enables LSI SWR5), Yellow

2.3 Expansion Modules: IO Module

IMPORTANT NOTICE:

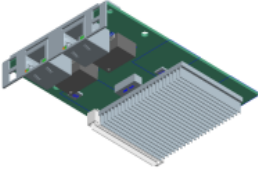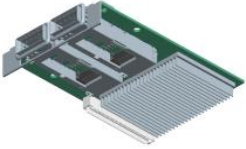All below I/O modules MUST have **AXXRMM4IOM** (mm# 918249) pre-installed in system.
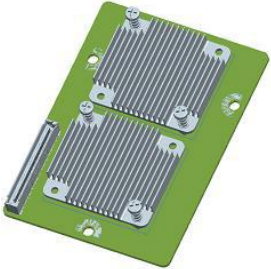
Image	Product Code MM UPC EAN MOQ	Description
	AXX10GBNIAIOM 917905 735858241090 5032037035842 1	Dual SFP+ port 10GbE IO module based on Intel® 82599 10 Gigabit Ethernet Controller Supports direct connect or transceiver. Cables/transceivers not included. Includes three screws
	AXX10GBTWLHWIOM 924136 735858254038 5032037047142 1	Dual RJ-45 port 10GBASE-T IO module, based on Intel® Ethernet Controller X540 Includes three screws
*Dual ports shown	AXX1FDRIBIOM 918607 735858241106 5032037035859 1	Single port, FDR 56GT/S speed Intel I/O Expansion Infiniband module, with QSFP connector, based on Mellanox CX3 MT27504A1-FCCR-FV chip. Includes three screws *Dual port shown on picture
	AXX2FDRIBIOM 920627 735858245722 5032037040235 1	Dual port, FDR 56GT/S (per port capable) speed Infiniband module, with QSFP connector, based on Mellanox CX3 MT27508A1-FCCR-FV chip. Note, due to PCIe3 x8 bandwidth limitation, both ports can't simultaneously function at full speed. Includes three screws.

Image	Product Code MM UPC EAN MOQ	Description
	AXX4P1GBPWLIOM 917911 735858241083 5032037035835 1	Quad port 1GbE IO Module based on Intel® Ethernet Controller I350
	AXXQAAIOMOD 920561 735858244848 5032037039413 1	Intel Quick Assist Accelerator I/O Module

2.4   Service: On-site Repair, Extended Warranty

Image	Product Code MM MOQ	Description
	SVCORHWSY 923114 1	Intel® Server System H2000 On-Site Repair, Next Business Day
	SVCEWHWSY 923113 1	Intel® Server System H2000 Extended Warranty, Single
	SVCEWHWB 914905 1	Intel® Compute Module HNS2000 Extended Warranty, Single
	SVCEWDPBD 911294 1	Two year extended warranty for Intel® Server Boards that support two processors.

VMware Product Descriptions – Overview

VMware vSphere* software is available as an accessory when ordering an Intel® Server Board or Intel® Server System. **Customers can only order these SKUs at the time they are ordering an Intel® Server Board or Intel® Server System.** These SKUs cannot be ordered individually.

Licensing Per Processor with vRAM Entitlements: VMware vSphere 5 is licensed on a per-processor basis with a vRAM entitlement. Each VMware vSphere 5 processor license comes with an entitlement to a certain amount of vRAM capacity, or memory configured to virtual machines. For more information, VMware's licensing whitepaper can be found at http://www.vmware.com/products/vsphere/overview.html.

2.5   VMware vSphere* and vCenter* Server SKUs

Each VMware vSphere SKU contains a paper certificate with a software product activation code. As directed on the certificate, the end user must register the product activation code with VMware at http://www.vmware.com/code/intel to access VMware Software, Support and Subscription Services.

VMware vSphere* and vCenter* Server Editions

All VMware vSphere SKUs (except Essentials) are bundled with either 1 year VMware Basic (12x5) or with 1 year VMware Production (24x7) Support and Subscription. The Essentials SKU is bundled with 1 year VMware Subscription.

Essentials	VMware vSphere 5 Essentials Bundle for 3 hosts (Max 2 processors per host) and 192 GB vRAM entitlement with 1 year VMware Subscription.
Essentials Plus	VMware vSphere 5 Essentials Plus Bundle for 3 hosts (Max 2 processors per host) and 192 GB vRAM entitlement with 1 year VMware Basic (12x5) Support and Subscription with 1 year VMware Production (24x7) Support and Subscription
Standard	VMware vSphere 5 Standard for 1 processor (with 32 GB vRAM entitlement per processor) with 1 year VMware Basic (12x5) Support and Subscription with 1 year VMware Production (24x7) Support and Subscription
Enterprise	VMware vSphere 5 Enterprise for 1 processor (with 64 GB vRAM entitlement per processor) with 1 year VMware Basic (12x5) Support and Subscription with 1 year VMware Production (24x7) Support and Subscription
Enterprise Plus	VMware vSphere 5 Enterprise Plus for 1 processor (with 96 GB vRAM entitlement per processor) with 1 year VMware Basic (12x5) Support and Subscription with 1 year VMware Production (24x7) Support and Subscription
VMware vCenter* Server Standard for vSphere 5	VMware vCenter Server 5 Standard for vSphere 5 (Per Instance) One instance of vCenter Server is required to centrally manage virtual machines and their hosts and to enable all VMware vSphere features on Standard, Enterprise and Enterprise Plus editions. with 1 year VMware Basic (12x5) Support and Subscription with 1 year VMware Production (24x7) Support and Subscription

VMware vSphere* and VMware vCenter* – Order Codes:

Product Code	UPC	MM	Description	Minimum Order Quantity
VMW5ESS	7 35858 22474 1	918769	Paper certificate containing software license activation code for VMware vSphere 5 Essentials Bundle for 3 hosts (Max 2 processors per host) and 192 GB vRAM entitlement with 1 year VMware Subscription.	1
VMW5ESSPLUS	7 35858 22475 8	918774	Paper certificate containing software license activation code VMware vSphere 5 Essentials Plus Bundle for 3 hosts (Max 2 processors per host) and 192 GB vRAM entitlement with 1 year VMware Basic (12x5) Support and Subscription.	1
VMW5ESSPLUSP	7 35858 22476 5	918768	Paper certificate containing software license activation code for VMware vSphere 5 Essentials Plus Bundle for 3 hosts (Max 2 processors per host) and 192 GB vRAM entitlement with 1 year VMware Production (24x7) Support and Subscription.	1
VMW5STD	7 35858 22477 2	918773	Paper certificate containing software license activation code for VMware vSphere 5 Standard for 1 processor (with 32 GB vRAM entitlement per processor) with 1 year VMware Basic (12x5) Support and Subscription.	1
VMW5STDP	7 35858 22478 9	918767	Paper certificate containing software license activation code for VMware vSphere 5 Standard for 1 processor (with 32 GB vRAM entitlement per processor) with 1 year VMware Production (24x7) Support and Subscription.	1
VMW5ENT	7 35858 22479 6	918772	Paper certificate containing software license activation code for VMware vSphere 5 Enterprise for 1 processor (with 64 GB vRAM entitlement per processor) with 1 year VMware Basic (12x5) Support and Subscription.	1
VMW5ENTP	7 35858 22484 0	918770	Paper certificate containing software license activation code for VMware vSphere 5 Enterprise for 1 processor (with 64 GB vRAM entitlement per processor) with 1 year VMware Production (24x7) Support and Subscription.	1
VMW5ENTPLUS	7 35858 22480 2	918771	Paper certificate containing software license activation code for VMware vSphere 5 Enterprise Plus for 1 processor (with 96 GB vRAM entitlement per processor) with 1 year VMware Basic (12x5) Support and Subscription.	1

Product Code	UPC	MM	Description	Minimum Order Quantity
VMW5ENTPLUSP	7 35858 22481 9	918760	Paper certificate containing software license activation code for VMware vSphere 5 Enterprise Plus for 1 processor (with 96 GB vRAM entitlement per processor) with 1 year VMware Production (24x7) Support and Subscription.	1
VMW5VCSTD	7 35858 22482 6	918742	Paper certificate containing software license activation code for VMware vCenter Server 5 Standard for vSphere 5 (Per Instance) with 1 year VMware Basic (12x5) Support and Subscription.	1
VMW5VCSTDP	7 35858 22483 3	918759	Paper certificate containing software license activation code for VMware vCenter Server 5 Standard for vSphere 5 (Per Instance) with 1 year VMware Production (24x7) Support and Subscription.	1