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 1.4** 

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**Enterprise Platforms and Services Marketing** 

### **Revision History**

October'11 – Rev 0.9 – Production draft

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February'12 – Rev 1.0 – Production Candidate 2

March'12 - Rev 1.1 - Remove EPSD InfiniBand Gen3 I/O modules

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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 will be offered in variety of options to provide the flexibility and facility for customer.

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

Board will be offered as 10-pack at launch.

Chassis will be offered as KDK at launch. It will include power supply, but Compute Module will be 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.

EPSD Romley Chassis and Systems shipped to the US & Canada will 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:

								Available
Pcode	FF	HDD	# of	HDD	Power supply	Rails	Compute Module	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:

					Intel <sup>®</sup> RAID	
			rIOM riser /	RMM4 Lite	C600 Upgrade	Available
Pcode	FF	Integrated InfiniBand	carrier	Key	Key	Time
	1U					Launched
	Compute			Not		
HNS2400LP	Module	No	Not included	included	Not included	

### Board:

					Intel <sup>®</sup> RAID	
			rIOM riser /	RMM4 Lite	C600 Upgrade	Available
Pcode	FF	Integrated InfiniBand	carrier	Key	Key	Time
	6.8" W x					Launched
BBS2400LP	16.6" L	No	Not included	Not included	Not included	

### 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 PCle3 x16 capable slot and 1 PCle3 x8 capable slot (not PCle Sig compatible) - Dual 1GbE - Compatible with Intel® Xeon® processor E5-2400 series.

### 1.4 Available Production System order codes

	Draduat Coda	
Image	Product Code MM UPC EAN MOQ	Description
*Demo only	H2312LPJR 919008 735858235020 5032037029773	The Production Intel® Server System H2312LPJR - 2U H2312XXJR Chassis (Blank Node Filler FH2000BNF excluded) - 4x HNS2400LP Compute Module There are no required EPSD 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 There are no required EPSD components to make this system functional

### 1.5 Available Production Chassis order codes

	Product Code	
Image	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)
*Demo only	H2216XXKR 919023 735858243308 5032037037945	The Production Intel® Server Chassis H2216XXKR - 2U H2000 Chassis (front panel FH2000FPANEL included, Power Distribution Board FXXCRPSPDB included) - 2x 1600W Platinum PSU (FXX1600PCRPS)

1	<ul> <li>16x 2.5" Hot-swap HDDs support (carriers FXX25HSCAR included, backplane FHW16X25HSBP)</li> <li>4x Blank Node Filler (FH2000BNF)</li> <li>Basic rack rail (AXXELVRAIL)</li> </ul>
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## 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

	Dun duct Orde	
Image	Product Code MM UPC EAN MOQ	Description
	AXXRMM4LITE	
	911660	
an R	00735858219297	Activation key for advanced management
N wine a - t T T E	5032037014946	features
*Demo only	1	
	AXXRMM4IOM	
	918249	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
1311 tom	735858243254	HNS2600JF and HNS2400LP compute module family
	5032037037891	NOTE: The AXXRMM4LITE is NOT included. It
*Demo only	1	must be ordered seperately for advanced management features.
	FHW1U16RISER	
	916729	1U PCI Express x16 riser card for supporting
	735858223003	in-board low-profile PCIe adding card of Slot1
To Carting the Control of the Contro	5032037019286	on HNS2600JF, HNS2600WP and HNS2400LP compute module family
	3032037013200	Throz-rooti compute module family
*Demo only	10	
	FXX4056DRFAN	
	918254	
	735858243469	40x56mm Dual Rotor Fan spare
	5032037038102	
*Demo only	10	
_ = ====		

AND SECTION AND SE	FXX1200PCRPS	
	915605	
	735858225137	1200W AC Common Redundant Power Supply
	5032037035071	FXX1200PCRPS 80Plus Platinum-Efficiency
*Demo only	1	
Define only		
TOTAL STATE OF THE PARTY OF THE	FXX1600PCRPS	
	915606	
	735858243650	1600W AC Common Redundant Power Supply FXX1600PCRPS 80Plus Platinum-Efficiency
Second Act	500000700004	,
2 - S-C-10	5032037038294	Notes: Available in Q3'12
*Demo only	1	
	FXXCA90X90HS	
	918255	
	735858235075	1U Standard Cu/Al 90mm x 90mm Heat Sink (Rear Heat Sink)
S	5032037029827	(Noar Float Clink)
*Demo only	2	
	FXXEA90X90HS	
	918256	
	735858235082	1U Standard Ex-Al 90mm x 90mm Heat Sink
	5032037029834	(Front Heat Sink)
*Demo only	2	
	FHW12X35HSBP	
	1110012/0011005	
	920830	
	735858246729	Spare 12 x 3.5" backplane for H2000 Chassis
	5032037041188	family
	1	
*Demo only		

	FHW16X25HSBP	
	920829	
	735858246736	Spare 16 x 2.5" backplane for H2000 Chassis family
	5032037041195	laniny
*Demo only	1	
Define only	FH2000BNF	
	FHZUUUDINF	
	920831	
	735858246880	Spare Blank Node Filler for H2000 Chassis family
	5032037041881	Tarriny
*Demo only	10	
	FH2000NPB	
	920832	
of land	735858246743	Spare Node Power Board for H2000 Chassis family
	5032037041201	Tarriny
*Demo only	10	
•	FHWLPBGB	
	920834	
	735858246774	Spare Bridge Board for H2000LP System
	5032037041232	
*Demo only	10	
	FXXCRPSPDB	
	921250	
	735858246750	Spare Power Distribution Board for Common Redundant Power Supply 1200W and 1600W
	5032037041218	of H2000 Chassis
*Demo only	10	

	FH2000FPANEL	
	920835	
	735858246873	Spare front control panel kit for H2000 Chassis family
The West of the	5032037041874	lamily
*Dama ank	1	
*Demo only	FH2000LPMKIT	
	TTIZOOOLI WIKIT	
	919034	Chassis Maintenance Kit FH2000LPMKIT (for
	735858235068	Intel® Server System H2000LP family) including (2) Node tray of HNS2400LP, (2)
ELEGATION ELECTRICAL SECTION OF S	5032037029810	Airduct of HNS2400LP, Plastic cover of bridge board, Cable kit and Screw kit
*Demo only	1	
4	FXX25HSCAR	
	918807	
	735858241182	Spare 2.5" HDD hot swap carriers
	5032037035910	
*Demo only	8	
	FXX35HSADPB	
	912771	
	00735858219495	Spare 3.5" HDD hot swap carriers
	5032037016391	oparo o.o Tibb not swap camers
*Demo only	8	
-0.	AXXELVRAIL	
- 3	920970	
M. S. S. S. S. S.	00735858244367	
T. C.	5032037038980	
*Demo only	1	

	FPWRCABLENA	
	879287	
	735858181129	North American Power Cord Spare
	5032037015738	
*Demo only	1	
	A2UBEZEL	
	918086	
	735858241137	2U locking bezel with two branding clip-on inserts
*Dema only	5032037035880	
*Demo only	1	

# 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	Intel® RAID C600 Upgrade Key RKSATA4R5 enables LSI SATA SW RAID 5, Black
	5032037033640	Shables Let Sittint eve to the state.
The Report of the	5	
THE .	RKSAS4	
	916349	Intel® DAID CCOOLInguado Koy DKCACA
	735858238892	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
	5032037033671	0/1/10, Green
NAME OF THE PARTY	5	
	RKSAS4R5	
*Demo only	916350	Intel® RAID C600 Upgrade Key RKSAS4R5
	735858238908	activates 4 SAS ports and includes RSTe SW RAID 0/1/10 (no RAID 5) and LSI SW RAID
	5032037033688	0/1/10/5 (enables LSI SWR5), Yellow
	5	

## 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
	AXX10GBTWLHWI OM 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 PCle3 x8 bandwidth limitation, both ports can't simultaneously function at full speed. Includes three screws.
	AXX4P1GBPWLIO M	Quad port 1GbE IO Module based on Intel® Ethernet Controller I350

917911 735858241083 5032037035835	
1	
AXXQAAIOMOD	
920561	
735858244848	Intel Quick Assist Accelerator I/O Module
5032037039413	mer garan resist resistant in a madule
1	

# 2.4 Service: On-site Repair, Extended Warranty

Image	Product Code MM MOQ	Description	
Engineers 38 Days  Engineers  Engineers 38 Days  Engineers  Engine	SVCORHWSY 923114 1	Intel® Server System H2000 On-Site Repair, Next Business Day	
Street Source Component Extended Rismany Kap  Exposure: 38 Days  describing to proble time* Source Component Extended Rismany  - Source Component Extended Rism	SVCEWHWSY 923113 1	Intel® Server System H2000 Extended Warranty, Single	
Engineers 38 Days  Engineers  Enging  Engineers  Engineers  Engineers  Engineers  Engineers  Engine	SVCEWHWB 914905 1	Intel® Compute Module HNS2000 Extended Warranty, Single	
Engineers 38 Days  Engineers 38	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<sup>®</sup> Server Board or Intel<sup>®</sup> Server System. Customers can only order these SKUs at the time they are ordering an Intel<sup>®</sup> Server Board or Intel<sup>®</sup> 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 <a href="http://www.vmware.com/products/vsphere/overview.html">http://www.vmware.com/products/vsphere/overview.html</a>.

### 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 <a href="http://www.vmware.com/code/intel">http://www.vmware.com/code/intel</a> 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.

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

			GB vRAM entitlement with 1 year VMware Subscription.	
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
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	1

			entitlement per processor) with 1 year VMware Production (24x7) Support and Subscription.	
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