# Intel<sup>®</sup> Server Board S5500WBR Intel<sup>®</sup> Server System SR1690WBR Intel<sup>®</sup> Server System SR1695WB

# **Spares/Parts List and Configuration Guide**

A reference guide to assist customers in ordering the necessary components to configure the Intel<sup>®</sup> Server Board S5500WBR, the Intel<sup>®</sup> Server System SR1690WBR and the Intel<sup>®</sup> Server System SR1695WB.



## **Revision History**

July '09 - Rev 1.0 – initial public release of Intel<sup>®</sup> Server System SR1690WB, retained Intel<sup>®</sup> Server Board S5500WB product codes, including those for processor and management software.

July'09 - Rev 1.1 - Update spares and accessories in support of PRA/SRA

Sept'09 - Rev1.2 - Update MMID for SR1690WBNA and added accessory codes

Sept'09 – Rev1.3 – Add VMware vSphere\* software information

Nov'09 - Rev1.4 - Remove InfiniBand\* IO module support from the list

Dec'09 - Rev1.5 - Add chassis cable management arm kit for AXXHERAIL2

Feb'10 - Rev1.6 - Update new order code for slim-line DVD/CDR drive accessory

Apr'10 - Rev1.7 - Remove basic slide rail kit AXXBASICRAIL from the list

June'10 - Rev 1.8 - Add Intel® Server System SR1695WB and add AXXBASICRAIL back

Aug'10 – Rev 1.9 – Add InfiniBand\* IO module accessory AXXIBQDRSR169X and mini-SAS cable AXXSR16XXRAIDCA, Update supported processor list part

Oct'10 - Rev 2.0 - Add Update supported Intel® RAID controllers list

Dec'10 - Rev 2.1 - Update the description for SR1695WBDC

Jan'11 – Rev 2.2 – Update Description for AXXRSBBU3 and Intel® Server System SR1690WB and SR1695WBDC, Update RAID related information

Mar'11 - Rev 2.3 - Add Update supported RAID IO Module list and remove IO Module AXXGBIOMOD

Apr"11 - Rev 2.4 - Add existed MMs for BBS5500WB and SR1690WB

Aug"11 - Rev 2.5 - Update the description for RMS2MH080

Oct"11 – Rev 2.6 – Update typo, remove the duplicated RAID items, add new RAID premium feature keys and RAID smart battery AXXRSBBU7

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#### **Product Overview**

**Product Overview:** The rack-optimized Intel<sup>®</sup> Server Board S5500WBR and Intel<sup>®</sup> Server System SR1690WBR are designed for high-density computing environments where energy efficiency and total cost of ownership are critical. They support up to two Intel<sup>®</sup> Xeon<sup>®</sup> processor 5500 series on next-generation Intel<sup>®</sup> micro architecture, highly scalable DDR3 memory, and expandable PCIe 2.0 I/O.

#### 1.1 Product Descriptions – Overview

The Intel® Server Board S5500WB is available to order in four different varieties:

1. Intel® Server Board S5500WBR - SSI (available in single pack or OEM 10PK).

**SSI SKU-** this version of the server board is designed to work with an "off the shelf" multi-rail power supply that adheres to the SSI power specification: "Power Supply Design Guideline for 2008 Dual-Socket Servers and Workstations". SSI specifications can be viewed at the following web site: <a href="http://ssiforum.org">http://ssiforum.org</a>

2. Intel® Server Board S5500WBR - 12V(available in single pack or OEM 10PK).

**12V SKU** – this version of the server board uses specially designed "single rail" power supplies that provide 12V and 5V standby current. The server board has integrated high efficiency voltage regulators that produce other voltages required (e.g. 3.3V, 5V). The board can also supply 5V power needed for hard drives. More details on this can be found in the Technical Product Specification (TPS).

3. Intel® Server System SR1690WBR\* (An integrated system SKU).

Integrated System – Ships as an integrated system\*\* SKU including the SSI version of the Intel<sup>®</sup> Server Board S5500WB in a Server Chassis featuring a high efficiency 650-watt power supply, PCIe 2.0 Riser and 4 hot swap HDD carriers which support both 2.5" and 3.5" drives.

\*Chassis will not be offered separately

\*\*Customer is required to provide Processors, DDR3 main memory and hard drives seperately to configure a complete, bootable system.

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





#### 4. Intel® Server System SR1695WB\* (An integrated system SKU).

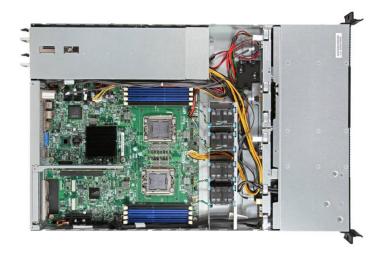
Integrated System – Ships as an integrated system\*\* SKU including the 12v version of the Intel<sup>®</sup> Server Board S5500WB in a Server Chassis featuring a high efficiency 450-watt (1+1) Redundant Hot-Swappable AC or a 450-watt DC power supply, PCle 2.0 Riser and 4 hot swap HDD carriers which support both 2.5" and 3.5" drives.

\*Chassis will not be offered separately

\*\*Customer is required to provide Processors, DDR3 main memory and hard drives seperately to configure a complete, bootable system.

<u>Note</u>: 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>





# **Production Order Codes**

# 1.2 Board & System Order Codes

Product Code	MM#	UPC	Description		
BBS5500WB12VR	905464	00735858208376	Intel® Server Board S5500WBR, 12V Power SKU, 10 pack.		
S5500WB12VR	905465	00735858208369	Intel <sup>®</sup> Server Board S5500WBR, 12V Power SKU, single pack/spare.		
BBS5500WBR	905462	00735858208352	Intel <sup>®</sup> Server Board S5500WBR, SSI power SKU, 10 pack.		
BBS5500WB	901561	00735858208352	Intel <sup>®</sup> Server Board S5500WB, SSI power SKU, 10 pack.		
S5500WBR	905463	00735858208345	Intel® Server Board S5500WBR, SSI power SKU, single pack/spare.		
SR1690WB	904733	00735858210980	Intel® Server System SR1690WB including:  1 Intel® Server Board S5500WB, SSI Power SKU Intel® Server Chassis SR1690WB 4 hot swap HDD carriers (supports both 2.5" & 3.5") 1 PCI Express 2.0 x8 riser 1 high-efficient non-redundant 650-watt PSU SATA backplane to connect 4 HDDs 4 dual-rotor system fans Cabled front panel 2 Intel® Thermal Solution STS100P Quick Reference Label Quick Start Users Guide Resource CD		
SR1690WBR	907330	00735858210980	Intel® Server System SR1690WBR including:  1 Intel® Server Board S5500WB, SSI Power SKU Intel® Server Chassis SR1690WB 4 hot swap HDD carriers (supports both 2.5" & 3.5") 1 PCI Express 2.0 x8 riser 1 high-efficient non-redundant 650-watt PSU SATA backplane to connect 4 HDDs 4 dual-rotor system fans Cabled front panel 2 Intel® Thermal Solution STS100P Quick Reference Label Quick Start Users Guide Resource CD		
SR1690WBRNA	905758	00735858210980	Same as SR1690WBR but includes North America Power cord		
SR1695WBAC	907789	00735858215374	Intel® Server System SR1695WBAC including:  • 1 Intel® Server Board S5500WB, 12V Power SKU  • Intel® Server Chassis SR1695WB  • 4 hot swap HDD carriers (supports both 2.5" & 3.5")  • 1 PCI Express 2.0 x8 riser  • 2 high-efficient redundant 450-watt AC PSU  • SATA backplane to connect 4 HDDs		

			<ul> <li>4 dual-rotor system fans</li> <li>Cabled front panel</li> <li>2 Intel<sup>®</sup> Thermal Solution STS100P</li> <li>Quick Reference Label</li> <li>Quick Start Users Guide</li> <li>Resource CD</li> </ul>
SR1695WBACNA	905822	00735858215497	Same as SR1695WBAC but includes North America power cord

Product Code	MM#	UPC Description	
SR1695WBDC	907790	00735858215381	Intel® Server System SR1695WBDC including:  1 Intel® Server Board S5500WB, 12V Power SKU Intel® Server Chassis SR1695WB  4 hot swap HDD carriers (supports both 2.5" & 3.5")  1 PCI Express 2.0 x8 riser  1 450-watt DC PSU  SATA backplane to connect 4 HDDs  4 dual-rotor system fans  Cabled front panel  2 Intel® Thermal Solution STS100P  Quick Reference Label  Quick Start Users Guide  Resource CD

Note that the boards are not shipped with a software CD, while the system does include a CD. The latest drivers and software can be downloaded from <a href="http://support.intel.com">http://support.intel.com</a> customers who require an Intel<sup>®</sup> Deployment Assistant CD may download an .ISO image and burn their own CDs.

## 1.3 Optional SR1690WB System Accessory Order Codes:

Product Code	MM#	UPC	Description	
FSR1690PMKIT	903445	00735858210997	System maintenance kit accessory for SR1690WB (includes all cables, Front Panel/USB Board, spare air duct, etc)	
FSR1690HDDCAR	903456	00735858211000	Spare HDD carrier for SR1690WB, supports both 2.5" and 3.5" HDD; MOQ is 5	
FSR1690BP	903457	00735858211017	Spare hot swap HDD backplane for SR1690WB – single pack	
FSR1690FAN	903458	00735858211024	Spare system fan kit for SR1690WB (includes one processor fan and one memory fan)	
FSR1690PS	903735	00735858211031	Spare 650-watt PSU for SR1690WB with PM Bus	
AXXBASICRAIL	881096	00735858184748	Basic slide rail kit. Does not support Cable Management Arm	
AXXHERAIL2	901082	00735858206549	Full extending Rail Kit, compatible SR1690WB	
AXXRACKARM2	901084	00735858206563	Chassis cable management kit, compliant with AXXHERAIL2	
AXXSATADVDROM	906872	00735858197663	Slim-line SATA DVD/CD-R drive accessory	
AXXSATADVDRWROM	898051	00735858197670	Slim line SATA DVD-RW drive accessory	

## 1.4 Optional SR1695WB System Accessory Order Codes:

Product Code	MM#	UPC	Description	
FSR1695PMKIT	908094	00735858215510	System maintenance kit accessory for SR1695WB (includes all cables, Front Panel/USB Board, Power Distribution Board etc)	

Product Code	MM#	UPC	Description	
FSR1690HDDCAR	903456	00735858211000	Spare HDD carrier for SR1695WB and SR1690WB supports both 2.5" and 3.5" HDD; MOQ is 5	
FSR1690BP	903457	00735858211017	Spare hot swap HDD backplane for SR1695WB and SR1690WB– single pack	
FSR1690FAN	903458	00735858211024	Spare system fan kit for SR1695WB and SR1690WB (includes one processor fan and one memory fan)	
FTH450WPS	907753	00735858214902	Spare 450-watt AC redundant PSU for SR1695WBAC with PM Bus	
ASR1695PSDC	907791	00735858215527	Spare 450-watt DC redundant PSU for SR1695WBDC with PM Bus	
AXXBASICRAIL	881096	00735858184748	Basic slide rail kit. Does not support Cable Management Arm	
AXXHERAIL2	901082	00735858206549	Full extending Rail Kit, compatible SR1695WB	
AXXRACKARM2	901084	00735858206563	Chassis cable management kit, compliant with AXXHERAIL2	
AXXSATADVDROM	906872	00735858197663	Slim-line SATA DVD/CD-R drive accessory	
AXXSATADVDRWROM	898051	00735858197670	Slim line SATA DVD-RW drive accessory	

# 1.5 Optional Board Accessory Order Codes:

Product Code	MM#	UPC	Description	
AXXRMM3	900961	00735858206570	Intel Remote Management Module 3	
AXX4SASMOD	900946	00735858206372	Intel® SAS Entry RAID I/O Expansion Module- provides four internal ports of pass through SAS, entry-level RAID 0/1/1E, and optional host RAID 5 – requires AXXRAKSW5	
AXXROMBSASMR	901641	00735858208017	Intel <sup>®</sup> Integrated RAID I/O Expansion Module- provides 4 internal ports full featured SAS/SATA RAID 0, 1, 5, 6 and striping capability for spans 10, 50, 60. Note: optional backup battery module AXXRSBBU3 must be ordered separately.	
AXXRSBBU3	900954	00735858181853	Intel® RAID Smart Battery for AXXROMBSASMR. Intel® Server System SR1695WB doesn't support AXXRSBBU3.	
AXXRSBBU6	897528	00735858201872	Intel® RAID Smart Battery for SRCSASLS4I and SRCSASB8I	
AXXRSBBU7	903148	00735858210676	Intel® RAID Smart Battery for Intel® RAID Controller RS2BL080, RS2BL040, RS2PI008, RT3WB080, RS2SG244, RS2WG160, RS2MB044, RS2VB080, RS2VB040, and Intel® Integrated RAID Module RMS2MH080.	
AXXSASIOMOD	880517	00735858184786	External 4 port SAS Intel <sup>®</sup> I/O Expansion Module	
AXX10GBIOMOD	900962	00735858206525	Dual port 10 Gigabit Ethernet Intel® I/O Expansion Module based on Intel 82598 controller with CX4 connectors	
AXX4GBIOMOD2	901359	00735858206532	Quad port Gigabit Ethernet Intel® I/O Expansion Module	

			based on the Intel® 82576EB Gigabit Ethernet Controller
AXXIBQDRSR169X	909786	00735858216401	InfiniBand* (QDR) Intel® I/O expansion module with single 4X IB connector

Product Code	MM#	UPC	Description	
AXXRAKSW5	878958	00735858181860	Intel® RAID Activation Key AXXRAKSW5. Enables Intel® Embedded Server RAID Technology II, an optional driver-based RAID 5 capability to on-board SATA ports, or on AXX4SASMOD. MOQ = 5.	
AXXPCIE16RISER	892597	00735858197441	1U PCI Express gen2 riser. Intel has performed basic validation with this riser and recommends customers do their own testing when using it with a 3rd party 1U chassis and the S5500WB server board.	
AXXRJ45DB92	881944	00735858155212	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 ribbor cable for cabling 2 <sup>nd</sup> serial port from the baseboard.	
AXXSR16XXRAIDCA	909656	00735858216265	Mini-SAS cable, used with Intel <sup>®</sup> RAID adds-in card with SGPIO. MOQ=10	
AXXRMS2AF080	907853	00735858215732	Intel <sup>®</sup> Integrated RAID Module RMS2AF080 provides 8 port entry-level SAS-2/6Gbps RAID 0,1,5 and striping capability for spans 10, 50. Includes cables. No BBU option.	
AXXRMS2AF040	907854	00735858215756	Intel <sup>®</sup> Integrated RAID Module RMS2AF040 provides 4 port entry-level SAS-2/6Gbps RAID 0,1,5 and striping capability for spans 10, 50. Includes cables. No BBU option	
AXXRMS2LL080	907855	00735858215749	Intel® Integrated RAID Module RMS2LL080 provides 8 port basic RAID 0/1/1E and JBOD mode. Includes cables. No BBU option.	
AXXRMS2LL040	907855	00735858215763	Intel <sup>®</sup> Integrated RAID Module RMS2LL040 provides 4 port basic RAID 0/1/1E and JBOD mode. Includes cables. No BBU option	
AXXRMS2MH080	907847	00735858215619	Intel <sup>®</sup> Integrated RAID Module SRMS2MH080 provides 8 port full featured SAS-2/6Gbps RAID 0, 1, 5, 6 and striping capability for spans 10, 50, 60. Includes 2	
			8087 to 7 Pin SATA cables.	
AXXRPFKSNSH	907051	00735858214377	Intel® Premium Feature Key that enables Intel® RAID Rapid Recovery Snapshot. Support Intel® RAID Controller RS2BL080, RS2BL040, RS2PI008, RT3WB080, RS2SG244, RS2WG160, RS2MB044, RS2VB080, RS2VB040, and Intel® Integrated RAID Module RMS2MH080.	
AXXRPFKDE	907050	00735858214360	Intel® Premium Feature Key that enables Intel® RAID Drive Encryption Management. Support Intel® RAID Controller RS2BL080,RS2BL040,RS2PI008,RT3WB080, RS2SG244, RS2WG160, RS2MB044, RS2VB080, RS2VB040, and Intel® Integrated RAID Module RMS2MH080.	
AXXRPFKSSD	918399	00735858214353	Intel® Premium Feature Key that enables Intel® RAID SSD Cache with Fast Path *I/O. Support Intel® RAID Controller RS2BL080, RS2BL040,	

	RS2PI008,RT3WB080, RS2SG244, RS2WG160, RS2MB044, RS2VB080, RS2VB040, and Intel® Integrated RAID Module RMS2MH080.
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## 1.6 Intel<sup>®</sup> Thermal Solution STS100:



Boxed processors do not include CPU heatsinks, a separate heatsink is required.

Product Code	MM#	UPC	Description
BXSTS100P	900492	00735858205146	Intel® Thermal Solution STS100P – Passive 1U/2U heatsink for processors up to and including 95W TDP

#### 1.7 Supported Processor List

For a complete list of supported processors for use with the Intel<sup>®</sup> Server Board S5500WBR/S5500WB12VR, Intel<sup>®</sup> Server System SR1690WBR/SR1690WBRNA and Intel<sup>®</sup> Server System SR1695WBAC/SR1695WBACNA/ SR1695WBDC go to this link:

http://www.intel.com/support/motherboards/server/s5500wb/sb/CS-030205.htm

## 1.8 Intel<sup>®</sup> RAID Contollers Options:

Picture	Product Code	MM#	UPC	MOQ	Description
	SRCSASLS4I	896952	00735858201353	5	Intel® RAID Controller SRCSASLS4I - PCIe x8, 4P SAS RAID Controller, 128MB embedded memory, MD2 Low Profile, half length form factor.
	SRCSASBB8I	896943	00735858201346	5	Intel® RAID Controller SRCSASBB8I - PCIe x8, 8P SAS RAID Controller, 256MB embedded memory, MD2 Low Profile, half length form factor.
	SASUC8I	900176	00735858205115	5	Intel® RAID Controller SASUC8I - PCIe x8, 8P SAS Controller with entry-level HW RAID 0/1/1E/10E, low profile, half-length MD2 compliant form factor.
	SASWT4I	900267	00735858205108	5	Intel® RAID Controller SASWT4I - PCIe x4, 4P SAS Controller with entry-level HW RAID 0/1/1E/10E, low profile, half-length MD2 compliant form factor. SR1695WB doesn't support SASWT4I.

Picture	Product Code	MM#	UPC	MOQ	Description
	RS2MB044	904993	00735858213028	5	Intel® RAID Controller RS2MB044 - PCIe x8, Mainstream 6G SAS RAID controller with 4 internal and 4 external ports for SAS/SATA drives.
7.	RS2WC080	903495	00735858211215	5	Intel® RAID Controller RS2WC080 - Entry- level 6G SAS RAID controller with 8 internal ports for SAS/SATA drives.
	RS2WC040	903496	00735858211253	5	Intel® RAID Controller RS2WC040 - Entry- level 6G SAS RAID controller with 4 internal ports for SAS/SATA drives.
	RS2BL080	903493	00735858210140	5	Intel® RAID Controller RS2BL080 - 6Gb/s SAS, 3Gb/S SAS/SATA, x8 PCIe 2.0, 8 internal ports, 512MB embedded memory, MD2 Low Profile, half length form factor. Includes 2 internal cables, Quick Start Users Guide, and CD ROM with technical documentation and software.
	RS2BL080SNGL	907739	00735858214742	1	Intel® RAID Controller RS2BL080 - 6Gb/s SAS, 3Gb/S SAS/SATA, x8 PCIe 2.0, 8 internal ports, 512MB embedded memory, MD2 Low Profile, half length form factor. Includes 2 internal cables, Quick Start Users Guide, and CD ROM with technical documentation and software.
	RS2BL080DE	903497	00735858211246	5	Intel® RAID Controller RS2BL080 "DE" supporting Disk Encryption) - 6Gb/s SAS, 3Gb/S SAS/SATA, x8 PCIe 2.0, 8 internal ports, 512MB embedded memory, MD2 Low Profile, half length form factor. Provides key and management for Self-Encrypting Disks. Includes 2 internal cables, Quick Start Users Guide, and CD ROM with technical documentation and software.
	RS2BL040	903494	00735858211239	5	Intel® RAID Controller RS2BL040 - 6Gb/s SAS, 3Gb/S SAS/SATA, x8 PCIe 2.0, 4 internal ports, 512MB embedded memory, MD2 Low Profile, half length form factor. Includes 2 internal cables, Quick Start Users Guide, and CD ROM with technical documentation and software.
	RS2PI008	903492	00735858211222	5	Intel® RAID Controller RS2Pl008 - 6Gb/s SAS, 3Gb/S SAS/SATA, x8 PCle 2.0, 8 external ports, 512MB embedded memory, MD2 Low Profile, half length form factor. Includes Quick Start Users Guide, and CD ROM with technical documentation and software.
	SRCSASJV	892602	00735858196444	5	Intel® RAID Controller SRCSASJV - PCIe x8, 8P SAS RAID Controller with Mux (ports can be configured as internal or external), ships with 512MB DIMM, supports up to 1GB ECC 7667MHz DDR2 mini-DIMM.

Picture	Product Code	MM#	UPC	MOQ	Description
	SASMF8I	896960	00735858201360		Intel® RAID Controller SASMF8I - PCIe x4, 8P SAS Controller with Intel Embedded Server RAID technology, Low Profile, half length form factor.

**MOQ** = Minimum Order Quantity.

## 1.9 Intel® System Management Software – Upgrade Order Codes:

The following Intel<sup>®</sup> System Management Software Upgrade SKUs are offered. Each SKU includes a Certificate of Authenticity (COA) that contains a product key for user to enter to upgrade:

Upgrades available to Microsoft System Center Essentials 2007\*

- Small Network Edition This upgrade gives the user the ability to manage up to 5 Windows-based servers OSEs and 15 Windows-based client OSEs.
- Standard Edition- This upgrade gives the user the ability to manage up to 10 Windows-based servers OSEs and 50 Windows-based client OSEs.
- Upgrade to add 1 or 5 Server Management license This upgrade gives the user the ability to manage 1 or 5 additional Windows-based server OSE.
- Upgrade to add 5 or 20 Client Management licenses This upgrade gives the user the ability to manage 5 or 20 additional Windows-based client OSEs.

#### Intel® System Management Software - Upgrade Order Codes:

Product Code	UPC	MM	Description	Picture	MOQ
SMS2SSE2SNE	7 35858 19670 3	893177	Upgrade from 90 day trial Edition to Small Network Edition  Not included: Software CDs are not included with upgrade.	MICROSOFT LICENSE REY SERVER MANAGEMENT LICENSE ("MLT) LICENSE REY FOR MICROSOFT STRING CHITTER ESSENTIALS 2007  FOR MICROSOFT STRING CHITTER ESSENTIAL 2007  FO	1
SMS2SNE2STD	7 35858 19671 0	893221	Upgrade from Small Network Edition to Standard Edition  Not included: Software CDs are not included with upgrade.	MICROSOFT LICENSE REY SERVER MANAGEMENT LICENSE FALTY DOM MICROSOFT STSTEM CENTER SSSENTIALS 2007  FOR MICROSOFT SSSENTIAL SSS	1

Product Code	UPC	MM	Description	Picture	MOQ
SMS2SSE2STD	7 35858 19672 7	893170	Upgrade from 90 day trial Edition to Standard Edition  Not included: Software CDs are not included with upgrade.	MICROSOFT LICENSE REY SERVER MANAGEMENT LICENSE ("ML") LICENSE REY FOR MICROSOFT SYSTEM CENTER ESSENTIALS 2007  BERNELL STATE AND ADMINISTRATION OF ADMINIST	1
SMS2CAL1S	7 35858 19675 8	893217	Microsoft System Center Essentials 2007 Server Management License* (1 Pack)  Not included: Software CDs are not included with upgrade.	MICROSOFT LICENSE REY SERVER MANAGEMENT LICENSE ("MY LICENSE REY FOR MICROSOFT STREET CHETTER ESSENTIALS 2007  FOR MICROSOFT STREET CHETTER ESSENTIALS 2007  FOR MICROSOFT STREET CHETTER ESSENTIALS 2007  FOR MICROSOFT LICENSE AND ADMINISTRATION OF THE PROPERTY OF THE PRO	1
SMS2CAL5S	7 35858 19676 5	893218	Microsoft System Center Essentials 2007 Server Management License* (5 Pack)  Not included: Software CDs are not included with upgrade.	MICROSOFT LICENSE REY SERVER MANAGEMENT LICENSE FANT LICENSE REY FOR MICROSOFT STSTEM CENTER ESSENTIALS 2007  STREET, and the server control of the street benefit of the street	1
SMS2CAL5C	7 35858 19673 4	893220	Microsoft System Center Essentials 2007 Client Management License* (5 Pack)  Not included: Software CDs are not included with upgrade.	MICROSOFT LICEUSE SEY SSEVEN BANAGEMENT LICEUSE FANT JUCINES REY FORM MICROSOFT SYSTEM CENTER ESSENTIALS 2007  WHEN AND AND AND AND AND AND AND AND AND AN	1
SMS2CAL20C	7 35858 19674 1	893219	Microsoft System Center Essentials 2007 Client Management License* (20 Pack)  Not included: Software CDs are not included with upgrade.	MICROSOFT LICENSE REY SERVER MANAGEMENT LICENSE ("MY LICENSE REY FOR MICROSOFT STRING MICROSOFT MICROSOFT AND A THE MICROSOFT	1

#### 1.10 VMware vSphere\* and vCenter\* Server SKUs

The following VMware vSphere SKUs are offered when purchasing a qualifying Intel<sup>®</sup> Server Board or Intel<sup>®</sup> Server System. Each SKU contains a software product activation code for user to enter to download software and install. 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> within 30 days to access VMware Software, Support and Subscription Services.

VMware vSphere\* and vCenter\* Server SKUs

Essentials

This license activation code gives the user VMware vSphere\* 4 Essentials Bundle for 3 hosts (Max 2 processors per host and 6 cores per processor), with 1 year VMware Subscription.

#### Essentials Plus

This license activation code gives the user VMware vSphere\* 4 Essentials Plus Bundle for 3 hosts (Max 2 processors per host and 6 cores per processor), with 1 year VMware Gold Support and Subscription.

#### Standard

This license activation code gives the user VMware vSphere\* 4 Standard for 1 Processor (Max 6 cores per CPU), with 1 year VMware Gold Support and Subscription.

#### Advanced

This license activation code gives the user VMware vSphere\* 4 Advanced for 1 Processor (Max 12 cores per CPU), with 1 year VMware Gold Support and Subscription.

#### Enterprise Plus

This license activation code gives the user VMware vSphere\* 4 Enterprise Plus for 1 Processor (Max 12 cores per CPU), with 1 year VMware Gold Support and Subscription.

VMware vCenter\* Server Standard for vSphere\*

This license activation code gives the user VMware vCenter\* Server 4 Standard for vSphere\* (Includes Orchestrator and Linked Mode), with 1 year VMware Gold Support and Subscription.

#### VMware vSphere\* and VMware vCenter\* Standard - Order Codes:

Product Code	UPC	MM	Description	MOQ
VMW4ESS	7 35858 21272 4	904791	Software license activation code certificate for VMware vSphere* 4 Essentials Bundle for 3 hosts (Max 2 CPUs per host and 6 cores per CPU) with 1 year VMware Subscription.	1
VMW4ESSPLUS	7 35858 21273 1	904792	Software license activation code certificate for VMware vSphere* 4 Essentials Plus Bundle for 3 hosts (Max 2 CPUs per host and 6 cores per CPU) with 1 year VMware Gold Support and Subscription.	1
VMW4STD	7 35858 21274 8	904793	Software license activation code certificate for VMware vSphere* 4 Standard for 1 Processor (Max 6 cores per CPU) with 1 year VMware Gold Support and Subscription.	1
VMW4ADV	7 35858 21275 5	904797	Software license activation code certificate for VMware vSphere* 4 Advanced for 1 Processor (Max 12 cores per CPU) with 1 year VMware Gold Support and Subscription.	1
VMW4ENTPLUS	7 35858 21276 2	904800	Software license activation code certificate for VMware vSphere* 4 Enterprise Plus for 1 Processor (Max 12 cores per CPU) with 1 year VMware Gold	1

Product Code	UPC	ММ	Description	MOQ
			Support and Subscription.	
VMWVCSTD	7 35858 21277 9	904801	Software license activation code certificate for VMware vCenter* Server 4 Standard (includes Orchestrator and Linked Mode) with 1 year VMware Gold Support and Subscription.	1