

Intel® 4-Processor Server System S7000FC4UR Configuration Guide Intel Value and Enterprise Servers

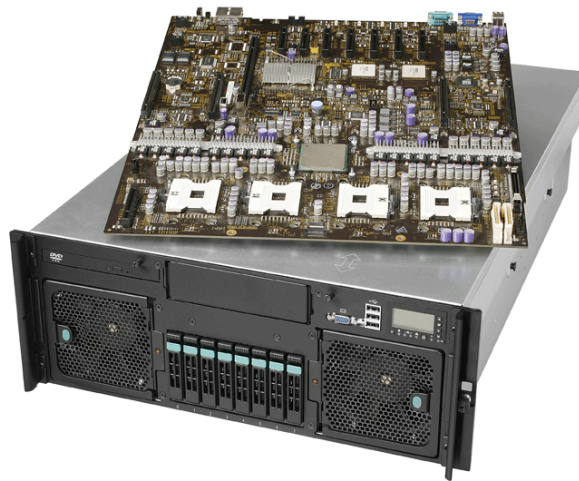
Rev 1.7

A reference guide to assist customers in ordering components to configure

S7000FC4UR

4-Processor 4U SAS 2.5" and 3.5" Server

Revisions/Additions in blue font



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2. Revision History

Date	Rev	Modification
Aug 29, 2006	0.1	NPI Draft
Dec 1, 2006	0.2	Alpha MM#s Added
Jan 15, 2006	0.3	Added Beta Placeholders
Feb 25, 2007	0.6	Updated Production and Beta SKU information
Mar 25, 2007	0.9	Updated Production Placeholders and Silver SKU information
April 20, 2007	0.95	Updated Production MM#s and Added Spares SKUs
June 22, 2007	0.98	Updated Production MM #s, added spares and Value vs. Enterprise pages
July 15, 2007	1.0	Promoted to rev 1.0 status, removed Pre-Production Order Codes, Improved description of FFCCABLEKIT, added Boxed Processor Reference codes
July 30, 2007	1.1	Updated Config table with corrections
Sept 1, 2007	1.2	Revised with Corrections
April 21, 2008	1.3	Updated MM#s
Sept 1, 2008	1.4	Updated MM#s
Sept 12, 2008	1.5	Updated MM#s, and added Dunnington Boxed and Tray Processor Reference Codes
Dec 1, 2008	1.6	Updated MM#s
Jan 7, 2009	1.7	Added new SFC4URX 3.5" SKU and new spare Hot Swap Backplane; updated MM#

3. Important Notes

1. Each S7000FC4UR server system can accommodate up to four memory boards. System SKUs include one memory board in the base configuration.
2. Product code SFC4URE comes preconfigured with redundant cooling and power.
3. Product code SFC4UR comes preconfigured with 1 power supply and an empty second power supply bay and 2 of 4 rear fan modules. Additional accessories may be ordered for redundant power and cooling configuration requirements.
4. Systems will not ship with processors, hard drives, or memory. These parts must be obtained separately.
5. Heat sinks are not included with any server systems.
6. Processor thermal blanks must be ordered separately (if no processor is installed).
7. The S7000FC4UR memory board supports FBD 533 or 667 registered DIMMs.
8. The Intel factory will package board orders into single order packaging and ship to fill customer orders. Each board MM is a self-contained shipping package of one board.
9. Power cords are not shipped with the system and must be obtained from local suppliers.
10. All parts listed below are fully RoHS compliant.
11. The SFC4URX 3.5" SKU requires a Host Bus Adapter (HBA) or RAID Adapter for operation. The SAS Riser AFCSASRISER is not used with this SKU. Please refer to the Intel® Server System S7000FC4UR Tested Hardware and Operating System List or consult your Intel support representative.

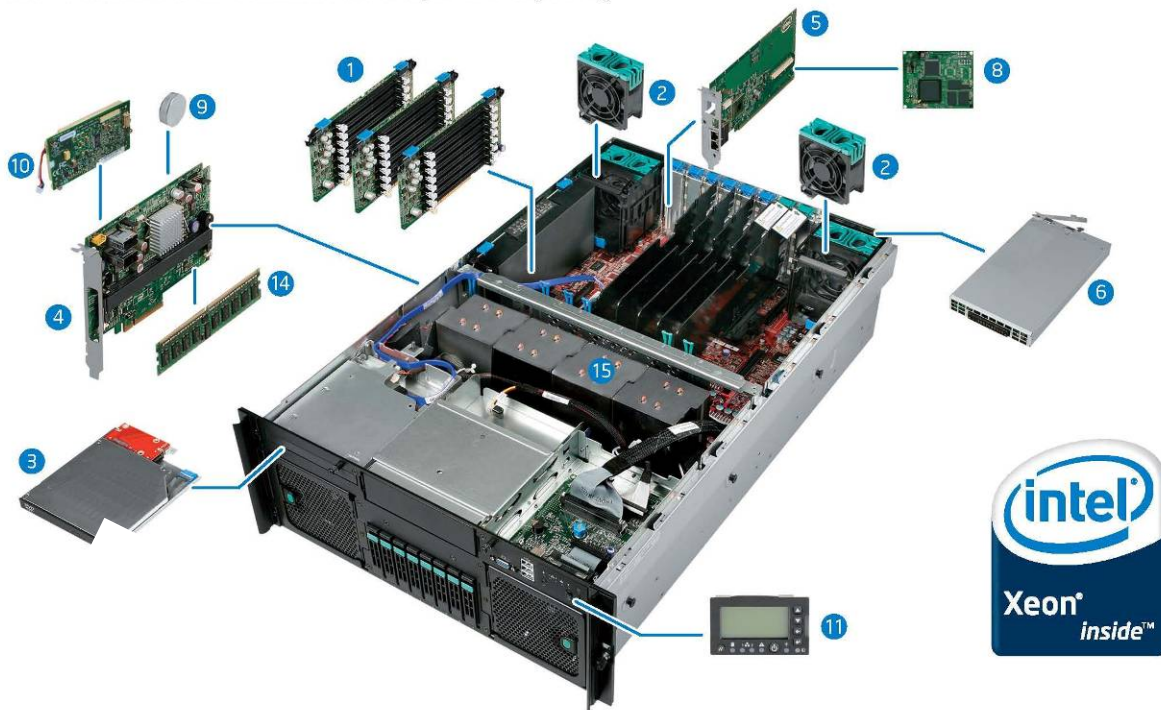
4. Base System SKU Contents

System Part Description	SFC4URE Enterprise SKU Production	SFC4UR Value SKU Production	SFC4URX 3.5" SKU Production
1/2" DVD-ROM Drive	1	0	0
Base Chassis	1	1	1
Baseboard	1	1	1
Bezel	0	0	0
Button Control Panel	1	1	1
Button panel cable	1	1	1
Drive Power Cable (Tape Backup and DVD-ROM)	1	1	1
Fan Power Cable	1	1	1
Front Fan Module	2	2	2
Front Panel Cable (SAS to Front Panel)	1	1	1
Front Panel IO board	1	1	1
Integrated RAID activation key	0	0	0
Integrated RAID Battery	0	0	0
Integrated RAID Memory	0	0	0
Intel LCD Control Panel	0	0	0
Intel Remote Management Module	0	0	0
IO Riser	1	0	0
Memory Board (8 Slots per board) with 8 DIMM fillers	1	1	1
Memory Board Filler Baffles	NA	NA	NA
Power Supply Filler Panel	NA	NA	NA
Power Supply Modules (15Amp, 110/220V)	2	1	1
Processor Heatsinks	0	0	0
Processor Thermal Dummy	0	0	0
Rack Faceplate Assembly	1	1	1
Rack Handles (Pair)	1	1	1
Rear Fan Module	4	2	2
Sample Safety Label	1	1	1
SAS Riser to backplane cable	2	0	0
SAS Riser with Integrated RAID capability (Intel)	1	0	0
SAS/SATA 4U Backplane Board	1	1	1
SAS/SATA HDD Carrier (Black) 2.5"	8	8	NA
SAS/SATA HDD Carrier (Black) 3.5"	NA	NA	5
SATA Optical drive cable	1	1	1
SATA to IDE converter board	1	1	1
System Packaging (with Intel labeling)	1	1	1
System Serial # Label	1	1	1

5. Value and Enterprise System SKU Comparison

Intel® Server System S7000FC4UR - Value SKU (SFC4UR)

Greater Value for Customizable Enterprise Computing



Standard Build:

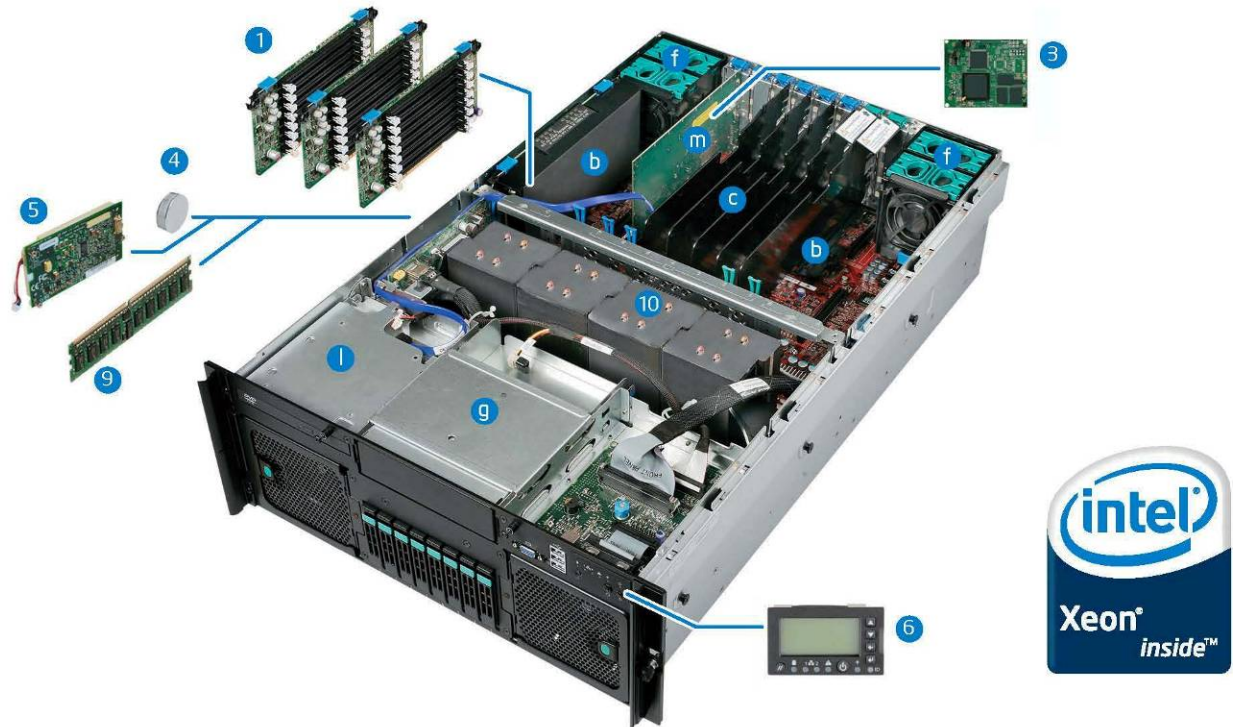
- Support for up to four Quad-Core Intel® Xeon® processors 7300 series or Dual-Core Intel Xeon processors 7200 series
- Support for up to 32 Fully Buffered DIMM sockets DDR2 533/667; support for memory sparing and mirroring
- Support for hot-plug PCI Express* (PCIe) plus seven total PCIe slots—four PCIe x8 (two hot-plug slots), three PCIe x4
- Up to four hot-swap hard-drive bays that support up to four 2.5-inch SATA hard drives with software RAID 0, 1 support
- Two front hot-swap variable-speed fan modules
- Two rear hot-swap variable-speed fan modules
- 5.25 inch peripheral bay for internal backup and archive
- Dual Onboard Gigabit (Gb) Ethernet ports

Accessories and Upgrades:

- Support for up to four 8 DIMM memory boards (BFCMEM)
- Two rear hot-swap variable-speed fan modules for 1+1 redundancy (FC4UBKFAN)
- DVD ROM/CD ROM for removable media (AFCDVD)
- SAS riser module for support of up to eight SAS/SATA 2.5 inch hot swap hard disk drives, and Intel® Integrated RAID support (AFCASRISER)
- Integrated network I/O expansion module (FCIORISER) provides additional dual Gb NIC ports, and support for Intel® Remote Management Module 2
- Hot-swap 110V/210V, 1570 W power supply module, for 1+1 redundant power (AFC4UPWR)
- Black front bezel (AHW4URBEZEL)
- Intel Remote Management Module 2 (AXXRRM2)—requires Intel® I/O remote management module
- Intel® Integrated RAID activation key HW RAID support for 0, 1, 1A, 5, 6, 10, 50, 60 (AXXRAKSAS2)
- Intel® integrated RAID backup battery 4, for persistent RAID settings during full power loss (AXXRSBBU4)
- Intel® Local Control Panel Display, replaces button control panel (AXXLCPMOD2)
- Rack cable management arm (AXXCMA3U7U)
- Rack rails—tool-less J-hook design (AXXRAIL3U7U)
- RAID DDR2 667 DIMM memory
- Processor heat sinks (AFCPROCIIS)

Intel® Server System S7000FC4UR - Enterprise SKU (SFC4URE)

Peak Performance for Enterprise Computing and Complex Transactions Out of the Box



Standard Build:

- a. Support for up to four Quad-Core Intel® Xeon® processors 7300 series or Dual-Core Intel Xeon processors 7200 series
- b. Support for up to 32 dual inline memory module (DIMM) sockets 533/667; support for memory sparing and mirroring
- c. Support for hot-plug PCI Express® (PCIe) plus seven total PCIe slots—four PCIe x8 (two hot-plug slots), three PCIe x4
- d. Up to eight SAS/SATA 2.5-inch hot-swap hard disk drives, and Intel Integrated RAID support
- e. Two front redundant hot-swap variable-speed fan modules
- f. Four rear redundant hot-swap variable-speed fan modules
- g. 5.25-inch peripheral bay for internal backup and archive
- h. Dual Onboard Gigabit (Gb) Ethernet ports
- i. Dual embedded Gb network ports (via Integrated Network I/O Expansion Module)
- j. Redundant 1+1 cooling front and rear
- k. Redundant 1+1 110V/240V power supply modules
- l. DVD-ROM/CD-ROM for removable media
- m. Integrated Network I/O Expansion Module (provides support for Intel® Remote Management Module)

Accessories and Upgrades:

1. Support for up to four 8 DIMM Memory Boards (BFCMEM)
2. Black front bezel (AHW4URBEZEL)
3. Intel® Remote Management Module 2 (AXXRMM2)
4. Intel® Integrated RAID activation key HW RAID support for 0, 1, 1A, 5, 6, 10, 50, 60 (AXXRASAS2)
5. Intel® Integrated RAID Backup Battery 4, for persistent RAID settings during full power loss (AXXRSBBU4)
6. Intel® Local Control Panel Display, replaces button control panel (AXXLCPMOD2)
7. Rack cable management arm (AXXCMA3U7U)
8. Rack rails: tool-free J-hook design (AXXRAIL3U7U)
9. RAID DDR2 667 DIMM memory
10. Processor heat sinks (AFCPROCHS)

6. Production System Configuration Options

SFC4UR
Value 4U Server



OR

SFC4URE
Enterprise 4U Server

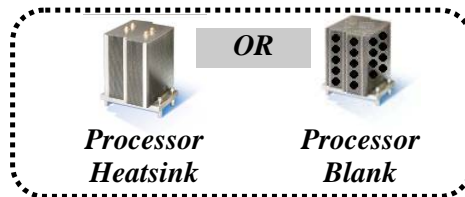


OR

SFC4URX 3.5"
4U Server



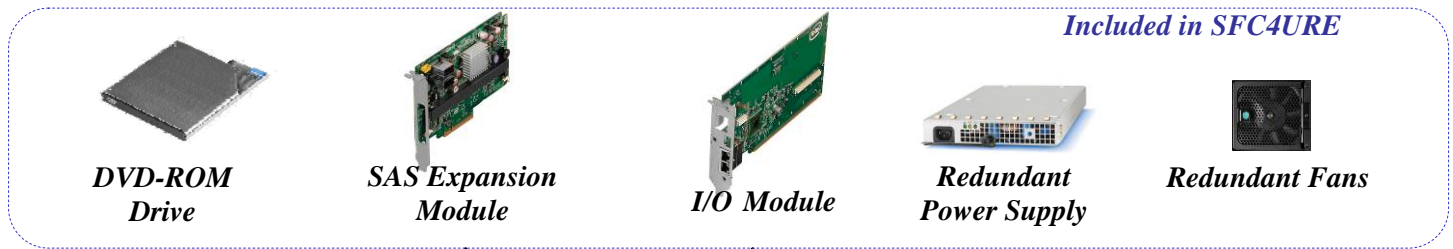
Mandatory Accessories



Processor Heatsink

Processor Blank

Optional Accessories



DVD-ROM Drive

SAS Expansion Module

I/O Module

Redundant Power Supply

Redundant Fans



Up to 3 additional memory boards.



ROMB Key and Battery



Remote Management Module 2 (RMM2)



Rack Rails and CMA



Bezel




7. Base System Part Configurator

Mandatory Accessories	
Feature	Product
Processor Heat Sinks and Blanks <i>(All 4 sockets must have Processor + Heatsink OR Processor Blank)</i>	Processor heat sink AFCPROCHS
	Processor blank AFCPROCBLANK
Optional Accessories	
Feature	Product
LCD Control Panel	LCD control panel AXXLCPMOD2
Memory board	8 DIMM memory board BFCMEM
RAID Solutions	Intel® SAS 2.5" RAID Activation Key AXXRAKSAS2 <i>(only used with SAS Module above)</i>
	Intel® RAID Smart Battery AXXRSBBU4 <i>(only used with SAS Module and Activation Key above)</i>
Rack Mount Solutions	Rack rails AXXRAIL3U7U
	Cable Management Arm AXXCMA3U7U
Front Bezel	4U Front bezel for rack mount AHW4URBEZEL
Intel® Remote Server Management Module (RMM2)	RMM requires Network IO Module (FFCIORISER) to connect AXXRMM2 <i>(only used with IO Module above)</i>
<i>Below Accessories are included in Enterprise System SKU (SRFC4URE)</i>	
SAS Module	Enables SAS Storage Capability with Intel Integrated RAID AFCASRISER
Integrated Network IO Module	Dual Channel NIC Module, with connector for RMM2 FFCIORISER
Redundant Rear Fans	Additional Cooling Reliability to Server (+2 fans per Server) FFC4UBKFAN
Redundant Power Supply	Additional Power Reliability to Server (+1 per Server) AFC4UPWR
Optical DVD Media Drive	DVD-ROM drive AFCDVD












8. Complete Product Production Ordering Code Listings

The following table lists all of the product codes applicable to the Fox Cove platform (sorted by category). Following the table are individual document sections which provide additional product descriptions for each product code.

8.1 Table 1: Base System Codes

Image	MM / UPC	Product Code	Description of Product	Qty Per	Min Order
	899977	SFC4UR	Intel® Server System S7000FC4UR. Base Customizable (Value SKU)	1	1
	899982	SFC4URE	Intel® Server System S7000FC4UR. (Enterprise SKU)	1	1
	900851	SFC4URX	Intel® Server System S7000FC4UR. (3.5" SKU)	1	1

8.2 Table 2: System Accessory Codes

Image	MM / UPC	Product Code	Description of Product	Qty Per	Min Order
	899976	BFCMEM	S7000FC4UR Memory board, 8 DIMM slots, FBD-533/667. Single-Pack.	1	1
	891016	AFC4UPWR	Power supply module. 4U. 15Amp, 110/220V.	1	1
	891013	AFCPROCHS	Intel® CEK processor heat sink.	1	1
	861922	AHW4URBEZEL	Bezel for front of S7000FC4UR.	1	1
	891014	AFCPROCBLANK	Intel® CEK processor blank. One required for every empty processor slot to maintain proper airflow for cooling.	1	1
	881379	AXXBCPMOD2	Button Control Panel Module.	1	1
	879578	AXXLCPMOD2	Intel® Local Control Panel		
	862119	AXXCMA3U7U	Rack cable management arm. 3U-7U chassis. Does not include the rack rails. Supports S7000FC4UR.	1	1
	881844	AXXRAIL3U7U	Rack rails for 3U-7U chassis. Does not include the cable management arm. Tool-less J-hook design. Supports S7000FC4UR.	1	1
	892106	AFCASASRISER	SAS Controller Module with Integrated RAID for S7000FC4UR. Includes interconnect cables: 2X SAS cables and SES cable.	1	1
	891290	AXXRAKSAS2	Intel® SAS RAID Activation Key.	1	5










	899346	AXXRSBBU4	Intel® RAID Smart Battery.	1	5
	894383	AXXRMM2	Intel® Remote Management Module.	1	1
	881681	FXX25HDDCAR	Intel® 2.5" SAS Hard Drive Carrier.	10	1
	880265	FXX10DVCARBLK	Intel® 3.5" SAS Hard Drive Carrier.	10	1
	891932	AFCDVD	Slim Line DVD Spare	1	1
	891570	FFC4UBKFAN	Rear System fans for the S7000FC4UR.	2	1

Table 3: System Field Replaceable Units (FRUs) and Spare Part Codes

Image	MM / UPC	Product Code	Description of Product	Qty Per	Min Order
	899975	BFCBASE	Intel® Server Base board for S7000FC4UR	1	1
BRD	881385	FHW4UFRTPNL	Control Panel IO Board for S7000FC4UR.	1	1
Spare	891614	FFC4UPLAS	Processor (Top/Bottom) Air Ducts, PCI Divider assembly, PCI Card hold down latch assemblies (25 green, 25 blue) for S7000FC4UR.	1	1
Spare	891583	FFCINTRU	Cable: Intrusion switch for S7000FC4UR.	1	1
	891440	FFCIORISER	Dual channel NIC and RMM attach IO Riser for S7000FC4UR.	1	1
	898557	FFCSASRISER	SAS Controller Module with Integrated RAID for S7000FC4UR.	1	1
Spare	885051	FHW4U2SASBP	SAS 2.5" 4U backplane for S7000FC4UR.	1	1
Spare	876328	FHW4U3SASBP	SAS 3.5" 4U backplane for S7000FC4UR.	1	1
	881380	FHW4UFAN	Front System fan for the S7000FC4UR.	1	1
Spare	881390	FHW4UPDB	Power distribution board for SR4850HW4.	1	1
Spare	891572	FFC4UINTSATA	Cable: Baseboard x4 SATA Port to SAS HDD backplane. (7 pin)	1	1
Spare	870273	FHWSATAIDE	SATA to IDE conversion board.	1	1
Spare	891600	FFCCABLEKIT	S7000FC4UR System Cables Bundle (Includes all of the Cables Below)	1	1
			Cable: Baseboard x1 SATA Port to Optical Media Drive. (7 pin)	1	
			Cable: Front panel control to front panel I/O	1	
			Cable: Front panel I/O to HDD Backplane for S7000FC4UR. (34 pin)	1	
			Cable: Front panel IO to Baseboard for S7000FC4UR. (100 pin)	1	
			Cable: Front Fan Power cable	1	
			Cable: Internal SAS Riser to 2.5" Backplane.	2	
			Cable: 5.25" Peripheral bay to SAS HDD Backplane for S7000FC4UR. (4 pin power)	1	
			Cable: SES SAS Module Riser to SAS backplane LED Fault cable (3 pin)	1	

9. Processor Codes Reference

9.1 Tray Processor Codes Reference

Category	Product Code	Description
Tray Processor	80565KH0778M	2.93 GHz / 2X4M Quad-Core Intel® Xeon® processor X7350 (Tigerton 130W)
Tray Processor	80565JH0368M	1.86 GHz / 2X4M Quad-Core Intel® Xeon® processor L7345 (Tigerton 50W)
Tray Processor	80565QH0568M	2.40 GHz / 2X4M Quad-Core Intel® Xeon® processor E7340 (Tigerton 80W)
Tray Processor	80565QH0566M	2.40 GHz / 2X3M Quad-Core Intel® Xeon® processor E7330 (Tigerton 80W)
Tray Processor	80565QH0464M	2.13 GHz / 2X2M Quad-Core Intel® Xeon® processor E7320 (Tigerton 80W)
Tray Processor	80565QH0254M	1.60 GHz / 2X2M Quad-Core Intel® Xeon® processor E7310 (Tigerton 80W)
Tray Processor	80564QH0778M	2.93 GHz / 2X4M Dual-Core Intel® Xeon® processor E7220 (Tigerton 80W)
Tray Processor	80564QH0568M	2.40 GHz / 2X4M Dual-Core Intel® Xeon® processor E7210 (Tigerton 80W)

Category	Product Code	Description
Tray Processor	80582KH067007	2.66 GHz / 16M Six-Core Intel® Xeon® Processor X7460 (Dunnington 130W)
Tray Processor	80582JH046003	2.13 GHz / 12M Six-Core Intel® Xeon® Processor L7455 (Dunnington 65W)
Tray Processor	80583JH046003	2.13 GHz / 12M Quad-Core Intel® Xeon® Processor L7445 (Dunnington 50W)
Tray Processor	80582QH056003	2.40 GHz / 12M Six-Core Intel® Xeon® Processor E7450 (Dunnington 90W)
Tray Processor	80583QH056007	2.40 GHz / 16M Quad-Core Intel® Xeon® Processor E7440 (Dunnington 90W)
Tray Processor	80583QH046003	2.13 GHz / 12M Quad-Core Intel® Xeon® Processor E7430 (Dunnington 90W)
Tray Processor	80583QH0468M	2.40 GHz / 8M Quad-Core Intel® Xeon® Processor E7420 (Dunnington 90W)

9.2 Boxed Processor Codes Reference (does not include Heatsink)

Category	Product Code	Description
Boxed Processor	BX80565X7350	2.93 GHz / 2X4M Quad-Core Intel® Xeon® processor X7350 (Tigerton 130W)
Boxed Processor	BX80565E7340	2.40 GHz / 2X4M Quad-Core Intel® Xeon® processor E7340 (Tigerton 80W)
Boxed Processor	BX80565E7330	2.40 GHz / 2X3M Quad-Core Intel® Xeon® processor E7330 (Tigerton 80W)
Boxed Processor	BX80565E7320	2.13 GHz / 2X2M Quad-Core Intel® Xeon® processor E7320 (Tigerton 80W)
Boxed Processor	BX80565E7310	1.60 GHz / 2X2M Quad-Core Intel® Xeon® processor E7310 (Tigerton 80W)

Category	Product Code	Description
Boxed Processor	BX80582X7460	2.66 GHz / 16M Six-Core Intel® Xeon® Processor X7460 (Dunnington 130W)
Boxed Processor	BX80582E7450	2.40 GHz / 12M Six-Core Intel® Xeon® Processor E7450 (Dunnington 90W)
Boxed Processor	BX80583E7440	2.40 GHz / 16M Quad-Core Intel® Xeon® Processor E7440 (Dunnington 90W)
Boxed Processor	BX80583E7420	2.40 GHz / 8M Quad-Core Intel® Xeon® Processor E7420 (Dunnington 90W)