

# Intel<sup>®</sup> Server Systems

## SR4850HW4M and SR6850HW4M

### Configuration Guide

Rev 2.77

A reference guide to assist customers in ordering components to configure a **Harwich 800T**-based server system.

**RoHS compliance w/ server exemption**

SR4850HW4M = Harwich 800T/Granby 4U Server  
SR6850HW4M = Harwich 800T/Gilbert 6U Server



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## 2. Revision History

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Date	Rev	Modification
Mar 23, 2005	1.1	Corrected system DVD from a DVD/CDRW to a DVD-ROM.
Sept 27, 2005	2.0	Harwich 800T placeholders.
Feb 27, 2006	2.4	Harwich 800T MM#s updated
Apr 24, 2006	2.7	Harwich 800T MM#s revised, DVD spare
June 6, 2006	2.71	Harwich 800T MM#s revised for RoHS accessories and Spares
June 27, 2006	2.72	Harwich 800T MM#s revised for RoHS accessories and Spares (Blue Font)
Sept 25, 2006	2.73	Updated Boxed and Tray Processor Reference Codes
Oct 25, 2006	2.74	Updated BHWBASEM MM#
April 2,2007	2.75	Updated SHW4URM & SHW6URM MM#
Aug 20,2007	2.76	Updated AHWIMMADV2 & AHWIMMPRO2 MM#
Aug 20,2007	2.77	Updated AHWIMMADV2 & AHWIMMPRO2 MM#

## 3. Important Notes

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1. The SRx850HW4M boardset is ordered and shipped as two separate boards. The two boards are the baseboard and the memory board. Each system can accommodate up to four memory boards. System SKUs include one memory board in the base configuration.
2. The 6U server platform SR6850HW4M (product code SHW6URM) comes preconfigured with 1 power supply and an empty second power supply bay. The second power supply bay must be filled with either a second power supply (AHW6UPWR) or a power bay fan (AHW6UPWRFAN).
3. Systems will not ship with processors, hard drives, or memory. These parts must be obtained separately from the system.
4. VRMs are not included with the platform.
5. Heat sinks are not included with the platform.
6. Processor thermal blanks must be ordered separately (if no processor is installed).
7. Either a Button Control Panel or Intel<sup>®</sup> Local Control Panel must be ordered for installation in the system.
8. Intel<sup>®</sup> Server Management Professional or Advanced modules must be ordered for installation in the system.
9. The SRx850HW4M memory board supports DDR2 400 SDRAM registered DIMMs.
10. 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.
11. Power cords are not shipped with the system and must be obtained from local suppliers. Please review the power cord enabling documents on support.intel.com, they cover all the countries that we intend to sell the product and have how to order the correct cable:  
<http://support.intel.com/support/motherboards/server/sr6850hw4/sb/cs-020878.htm>  
<http://support.intel.com/support/motherboards/server/sr4850hw4/sb/cs-020879.htm>
12. All parts listed below are RoHS compliant with server exemption.

# 4. System Configuration Options

**SR4850HW4M**  
**4U Platform**



**SR6850HW4M**  
**6U Platform**



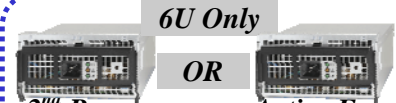
### Mandatory Accessories



**Button Control Panel** OR **LCD Control Panel**



**IMM Professional** OR **IMM Advanced**

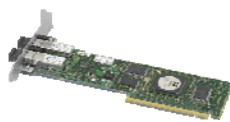


**6U Only**  
**2<sup>nd</sup> Power Supply** OR **Active Fan Blank**

### Optional Accessories



**ROMB Key and Battery**



**Fibre Channel Module**



**Rack Rails and CMA**



**Up to 3 additional memory boards.**



**Pedestal Kit (6U)**



**Bezels**

## 5. 4U System Part Configurator: SR4850HW4M

<b>Mandatory Accessories</b>	
Feature	Product
Intel Management Module <i>(Choose one per System)</i>	IMM Professional <b>AHWIMMPRO2</b>
	IMM Advanced <b>AHWIMMADV2</b>
Control Panel <i>(Choose one per System)</i>	Button control panel <b>AXXBPMOD2</b>
	LCD control panel <b>AXXLCPMOD2</b>
Processor Heat Sinks and Blanks <i>(All 4 sockets must have Processor + Heatsink OR Processor Blank)</i>	Processor heat sink <b>AHWPROCHS</b> <i>NOTE: Boxed processors include this heat sink.</i>
	Processor blank <b>AHWPROCBLANK</b>
Processor VRM <i>(Use with 3 and 4 processors)</i>	Processor core 10.2 VRM <b>AHWVRMPM</b> <i>(one required for each processor used in socket 3 and 4)</i>
	Processor cache 9DO VRM <b>AHWVRMCM</b> <i>(one per system required for iL3 processor used in socket 3 and 4)</i>
<b>Optional Accessories</b>	
Feature	Product
RAID Solutions	Intel® RAID Activation Key <b>AXXRAKU42E</b>
	Intel® RAID Smart Battery <b>AXXRSBBU3</b> <i>(only used with Activation Key above)</i>
Fibre Channel Module	Fibre channel module <b>AHWFCMOD</b>
Rack Mount Solutions	Rack rails <b>AXXRAIL3U7U</b>
	Cable Management Arm <b>AXXCMA3U7U</b>
Memory board	4 DIMM memory board <b>BHW4DIMMM</b>
Front Bezel	4U Front bezel for rack mount <b>AHW4URBEZEL</b>

## 6. 6U System Part Configurator: SR6850HW4M

<b>Mandatory Accessories</b>	
Feature	Product
Intel Management Module <i>(Choose one per System)</i>	IMM Professional <b>AHWIMMPRO2</b>
	IMM Advanced <b>AHWIMMADV2</b>
Control Panel <i>(Choose one per System)</i>	Button control panel <b>AXXBCPMOD2</b>
	LCD control panel <b>AXXLCPMOD2</b>
Processor Heat Sinks and Blanks <i>(All 4 sockets must have Processor + Heatsink OR Processor Blank)</i>	Processor heat sink <b>AHWPROCHS</b> <i>NOTE: Boxed processors include this heat sink.</i>
	Processor blank <b>AHWPROCBLANK</b>
Processor VRM <i>(Use with 3 and 4 processors)</i>	Processor core 10.2 VRM <b>AHWVRMPM</b> <i>(one required for each processor used in socket 3 and 4)</i>
	Processor cache 9DO VRM <b>AHWVRMCM</b> <i>(one per system required for iL3 processor used in socket 3 and 4)</i>
6U Power Supply #2 Second power supply or a power fan. <i>(Choose one per System)</i>	Power supply module. 6U. 15Amp, 110v/220v. <b>AHW6UPWR</b>
	Power bay fan. 6U. <b>AHW6UPWRFAN</b>
<b>Optional Accessories</b>	
Feature	Product
RAID Solutions	Intel® RAID Activation Key <b>AXXRAKU42E</b>
	Intel® RAID Smart Battery <b>AXXRSBBU3</b> <i>(only used with Activation Key above)</i>
Fibre Channel Module	Fibre channel module <b>AHWFCMOD</b>
Rack Mount Solutions	Rack rails <b>AXXRAIL3U7U</b>
	Cable Management Arm <b>AXXCMA3U7U</b>
Memory board	4 DIMM memory board <b>BHW4DIMMM</b>
Front Bezel	Front bezel for rack mount <b>AHW6URBEZEL</b>
	Front bezel for pedestal mount <b>AHW6UPBEZEL</b>

## 7. Base System SKU Configuration Contents

### 7.1 Table 1: Base System Product Code Contents



Product Code	Description
<b>SHW4URM</b>	<p><b>Intel® Server Platform SR4850HW4M (Harwich 800T). 4U Rack.</b></p> <ul style="list-style-type: none"> <li>• 1x Baseboard</li> <li>• 1x Front Panel IO board</li> <li>• 1x Memory Board (1X4) plus bracket</li> <li>• 3x Memory Board Filler Baffles</li> <li>• 0x Intel Management Module (Professional IMM)</li> <li>• 2x Power Supply Module (15Amp, 208)</li> <li>• 1x 1/2" DVD-ROM Drive</li> <li>• 0x Button Control Panel</li> <li>• 1x SCSI 4U Backplane Board</li> <li>• 1x Rack Faceplate (Granby)</li> <li>• 5x SCSI HDD Carrier (Black)</li> <li>• 1x Base Chassis (Granby)</li> <li>• 0x Power Supply Filler Panel</li> <li>• 0x Processor Thermal Dummy</li> <li>• 2x Fan Module</li> <li>• 1x SATA Cable (Base board to SATA/IDE conversion board)</li> <li>• 1x Front Panel Cable (SCSI to Front Panel)</li> <li>• 1x Drive Power Cable (Tape Backup and DVD-ROM)</li> <li>• 1x Fan Power Cable</li> <li>• 1x Front Connect Cable (100-pin) (Base board to SCSI Backplane)</li> <li>• 1x Internal SCSI Cable (Base board to SCSI Backplane)</li> <li>• 0x Internal SCSI Cable (Base board to 5.25" bay)</li> <li>• 1x Sample Safety Label</li> <li>• 1x System Serial # Label</li> <li>• 1x System Packaging</li> <li>• 1x Rack Handles (Pair)</li> </ul>
<b>SHW6URM</b>	<p><b>Intel® Server Platform SR6850HW4M (Harwich 800T). 6U Rack.</b></p> <ul style="list-style-type: none"> <li>• 1x Baseboard</li> <li>• 1x Front Panel IO board</li> <li>• 1x Memory Board (1X4) plus bracket</li> <li>• 3x Memory filler baffles</li> <li>• 0x Intel Management Module (Professional IMM)</li> <li>• 1x Power Supply Module (15Amp, 110/208)</li> <li>• 1x 1/2" DVD-ROM Drive</li> <li>• 0x Button Control Panel Board</li> <li>• 1x SCSI 6U Backplane Board</li> <li>• 1x Rack Faceplate (Gilbert)</li> <li>• 10x SCSI HDD Carrier (Black)</li> <li>• 1x Base Chassis (Gilbert)</li> <li>• 0x Processor Thermal Dummy</li> <li>• 6x Fan Module</li> <li>• 1x SATA Cable (Base board to STAT/IDC conversion board)</li> <li>• 1x Front Panel Cable (SCSI to Front Panel)</li> <li>• 1x Drive Power Cable (Tape Backup and DVD-ROM)</li> <li>• 1x Fan Power Cable</li> <li>• 1x Front Connect Cable (100-pin) (Base board to front panel IO board)</li> <li>• 1x Internal SCSI Cable for channel A (Base board to SCSI backplane)</li> <li>• 1x Internal SCSI Cable for channel B (Base board to SCSI backplane)</li> <li>• 1x Sample Safety Label</li> <li>• 1x System Serial # Label</li> <li>• 1x System Packaging</li> <li>• 1x Rack Handles (Pair)</li> </ul>

## 8. Complete Product Ordering Code Listings

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

### 8.1 Table 2: Base System Codes



Image	Product Code	MM / UPC	Description	Qty Per	Min Order
	SHW4URM	879454	Intel® Server Platform SR4850HW4M.	1	1
	SHW6URM	879452	Intel® Server Platform SR6850HW4M.	1	1







## 8.2 Table 3: Common System Accessory Codes

Image	Product Code	MM / UPC	Description	Qty Per	Min Order
	AXXRAKU42E	879058	Intel® RAID Activation Key.	1	5
	BHW4DIMMM	876163	Memory board. 4 DIMM DDR2-400. 1 Pack.	1	1
	BHW4DIMMMBULK	877532	Memory board. 4 DIMM. 8 Pack.	1	8
	AHWPROCHS	869848	Intel CEK processor heat sink.	1	1
	AHWPROCBLANK	881378	Intel CEK processor blank. One required for every empty processor slot to maintain proper airflow for cooling.	1	1
	AHWVRMCM	883663	Processor cache VRM 9DO for Intel® Xeon™ processor MP with iL3 cache. One VRM 9DO supports both processors three and four. No VRM is required for processors one and two.	1	1
	AHWVRMPM	881372	Processor core VRM 10.2 for Intel® Xeon™ processor MP. A VRM 10.2 is required for each processor three and four.	1	1
	AXXBCPMOD2	881379	Button Control Panel Module.	1	1
	AXXLCPMOD2	879578	Intel® Local Control Panel. (LCP)	1	1
	AHWIMMPRO2	896590	Intel® Server Management Module Professional. Only for Intel® Server Platforms SR4850HW4 & SR6850HW4.	1	1
	AHWIMMADV2	896634	Intel® Server Management Module Advanced. Only for Intel® Server Platforms SR4850HW4 & SR6850HW4.	1	1
	AXXRAIL3U7U	877762	Rack rails for 3U-7U chassis. Does not include the cable management arm. Toolless J-hook design. Supports both the SR4850HW4 and SR6850HW4.	1	1
	AXXCMA3U7U	862119	Rack cable management arm. 3U-7U chassis. Does not include the rack rails. Supports both the SR4850HW4 and SR6850HW4.	1	1
	AXXRSBBU3	883471	Intel® RAID Smart Battery.	1	1
	AHWFCMOD	881842	Intel® Fibre Channel Module (HWFCM).	1	1
<b>Cable</b>	AHWEXTSCSI	869985	Cable: Internal cable for External SCSI port.	1	1
<b>Cable</b>	AHWINTSCSI	869424	Cable: Internal cable for 5.25" peripheral bay.	1	1


### 8.2.1 Table 4: 4U Unique Accessory Codes for SHW4URM

Image	Product Code	MM / UPC	Description	Qty Per	Min Order
	AHW4UPWR	881373	Power supply module. 4U. 15Amp, 208V.	1	1
	AHW4URBEZEL	861922	Rack bezel for SR4850HW4.	1	1
	AHW4U3SASKIT	882972	SAS 3.5" Conversion kit for SR4850HW4M (SCSI conversion to SAS) - Contains Cable, Backplane, and SAS Module (FHW4UINTSAS, FHW4U3SASBP, FXXSROMBSAS18E)	1	1

### 8.2.2 Table 5: 6U Unique Accessory Codes for SHW6URM

Image	Product Code	MM / UPC	Description	Qty Per	Min Order
	AHW6UPEDKIT	881375	SR6850HW4 pedestal conversion kit.	1	1
	AHW6UPWR	881376	Power supply module. 6U. 15Amp, 110V/220V.	1	1
	AHW6UPWRFAN	881377	Power bay fan. Mandatory when a second power supply is not installed in the SR6850HW4.	1	1
	AHW6URBEZEL	861924	Rack bezel for SR6850HW4.	1	1
	AHW6UPBEZEL	881839	Pedestal bezel for SR6850HW4.	1	1
	AHW6U3SASKIT	882993	SAS 3.5" Conversion kit for SR6850HW4M (SCSI conversion to SAS) - Contains Cable, Backplane, and SAS Module(FHW6UINTSAS, FHW6U3SASBP, FXXSROMBSAS18E)	1	1

### 8.3 Table 6: Common System Spare Part Codes

Image	Product Code	MM / UPC	Description	Qty Per	Min Order
	BHWBASEM	885977	Intel® Server Board SE8501HW4.	1	1
Board	FHWSATAIDE	870273	SATA to IDE conversion board.	1	1
Cable	FHWINTRU	871387	Cable: Intrusion switch for SR4850HW4 and SR6850HW4.	1	1
Plastic	FHWPCIDIVIDER	871912	PCI Divider assembly.	1	1
	SBCEDVD	865263	Optical Drive, DVD-ROM, single pack.	1	1

#### 8.3.1 Table 7: 4U Unique Spare Part Codes for SHW4URM

Image	Product Code	MM / UPC	Description	Qty Per	Min Order
Fan	FHW4UFAN	881380	System fan for the SR4850HW4.	1	1
Board	FHW4UFRTPNL	881385	Front IO panel board for SR4850HW4.	1	1
Board	FHW4UPDB	881390	Power distribution board for SR4850HW4.	1	1
Cable	FHW4UFPSATA	871296	Cable: Front panel and SATA cable bundle for SR4850HW4.	1	1
Plastic	FHW4UPRODUCT	871907	Processor Air Duct for SR4850HW4.	1	1
Plastic	FHW4UPCILATCH	871909	PCI Card hold down latches. Set of 8 for SR4850HW4.	1	1
Cable	FHW4UINTSCSIA	870014	Cable: Internal SCSI cable for SCSI BP A for SR4850HW4.	1	1
Cable	FHW4UFPSCSI	871297	Cable: Front panel to SCSI backplane for SR4850HW4. (34 pin)	1	1
Cable	FHW4UCPSCSI	871294	Cable: Control panel to SCSI backplane for SR4850HW4. (50 pin)	1	1
Cable	FHW4UPBAYSCSI	871422	Cable: Peripheral bay to SCSI backplane for SR4850HW4. (4 pin power)	1	1
Cable	AHW4UPCISCSI	876112	Cable: 4U PCI to SCSI backplane for SR4850HW4.	1	1
Board	FHW4USCSIBP	881456	SCSI backplane for SR4850HW4.	1	1

### 8.3.2 Table 8: 6U Unique Spare Part Codes for SHW6URM

Image	Product Code	MM / UPC	Description	Qty Per	Min Order
Fan	FHW6UFAN	869992	System fan for the SR6850HW4 (6U).	1	1
Board	FHW6UFRTPNL	881393	Front IO panel board for SR6850HW4 (6U).	1	1
Board	FHW6UPDB	881404	Power distribution board for SR6850HW4 (6U).	1	1
Cable	FHW6UFPSATA	871300	Cable: Front panel and SATA cable bundle	1	1
Plastic	FHW6UPCILATCH	871910	PCI Card hold down latches. Set of 8 for SR6850HW4.	1	1
Plastic	FHW6UPRODUCT	871911	Processor Air Duct for SR6850HW4.	1	1
Cable	FHW6UINTSCSIA	869990	Internal SCSI cable for SCSI BP A for SR6850HW4.	1	1
Cable	FHW6UINTSCSIB	869991	Internal SCSI cable for SCSI BP B for SR6850HW4.	1	1
Cable	FHW6UFPSCSI	871302	Cable: Front panel to SCSI backplane for SR6850HW4. (34 pin)	1	1
Cable	FHW6UCPSCSI	871299	Cable: Control panel to SCSI backplane for SR6850HW4. (50 pin)	1	1
Cable	FHW6UPBAYSCSI	871331	Cable: Peripheral bay to SCSI backplane for SR6850HW4x (4 pin power)	1	1
Cable	FHW6USATASCSI	871386	Cable: SATA to SCSI backplane for SR6850HW4. (power)	1	1
Cable	AHWPCISCSI	875340	Cable: 6U PCI to SCSI backplane for SR6850HW4.	1	1
Board	FHW6USCSIBP	881408	SCSI backplane for SR6850HW4 (6U).	1	1

### 8.4 Table 9: Boxed Processor Codes Reference (Heatsink Included)

Category	Product Code	Description
Boxed Processor	BX805507140M	3.4 GHz/16M/800 Dual-Core Intel® Xeon™ processor 7140M series
Boxed Processor	BX805507130M	3.2 GHz/8M/800 Dual-Core Intel® Xeon™ processor 7130M series
Boxed Processor	BX805507120M	3.0 GHz/4M/800 Dual-Core Intel® Xeon™ processor 7120M series
Boxed Processor	BX805507110M	2.6 GHz/4M/800 Dual-Core Intel® Xeon™ processor 7110M series
Boxed Processor	BX80560KG3000H	3.00 GHz/4M/800 Dual-Core Intel® Xeon™ processor 7000 sequence
Boxed Processor	BX80560KF3000H	3.00 GHz/4M/667 Dual-Core Intel® Xeon™ processor 7000 sequence
Boxed Processor	BX80560KG2800F	2.80 GHz/2M/800 Dual-Core Intel® Xeon™ processor 7000 sequence
Boxed Processor	BX80560KF2660F	2.66 GHz/2M/667 Dual-Core Intel® Xeon™ processor 7000 sequence
Boxed Processor	BX80546KF3333M	64-bit Intel® Xeon™ processor MP with 8MB L3 cache at 3.33 GHz
Boxed Processor	BX80546KF3000M	64-bit Intel® Xeon™ processor MP with 8MB L3 cache at 3.0 GHz
Boxed Processor	BX80546KF2833H	64-bit Intel® Xeon™ processor MP with 4MB L3 cache at 2.83 GHz
Boxed Processor	BX80546KF3660EM	64-bit Intel® Xeon™ processor MP with 1MB L2 cache at 3.66 GHz
Boxed Processor	BX80546KF3160EM	64-bit Intel® Xeon™ processor MP with 1MB L2 cache at 3.16 GHz

### 8.5 Table 10: Trayed Processor Codes Reference (Requires Heatsink-AHWPROCHS)

Category	Product Code	Description
Tray Processor	80550KG096007	3.4 GHz/16M/800 Dual-Core Intel® Xeon™ processor 7140M series
Tray Processor	80550KG0888M	3.2 GHz/8M/800 Dual-Core Intel® Xeon™ processor 7130M series
Tray Processor	80550KF0804M	3.0 GHz/4M/800 Dual-Core Intel® Xeon™ processor 7120M series
Tray Processor	80550KG0644M	2.6 GHz/4M/800 Dual-Core Intel® Xeon™ processor 7110M series