

Intel[®] Server Systems

SR4850HW4S and SR6850HW4S

Configuration Guide

Rev 3.05

A reference guide to assist customers in ordering components to configure
SAS 3.5" Harwich 800T-based server systems - RoHS compliance w/ server exemption.

SR4850HW4S = **Harwich 800T** 4U Server **SAS 3.5**
SR6850HW4S = **Harwich 800T** 6U Server **SAS 3.5**

Revisions/Additions in blue font



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2. Revision History

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 revisions.
Apr 24, 2006	2.7	Harwich 800T MM#s revised, DVD spare
Apr 25, 2006	3.0	Harwich 800T SAS MM#s added
Sept 25, 2006	3.01	Updated Boxed and Tray Processor Reference Codes
Oct 25, 2006	3.02	Updated BHWBASEM MM#
Apr 3, 2007	3.03	Updated SHW4URM3SA and SHW6URM3SA MM#
Aug 20, 2007	3.04	Updated AHWIMMADV2 & AHWIMMPRO2 MM#
Dec 7, 2007	3.05	Updated AHWIMMADV2 & AHWIMMPRO2 MM#

3. Important Notes

1. The SRx850HW4S 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 SR6850HW4S (product code SHW6URM3SA) 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® Local Control Panel must be ordered for installation in the system.
8. Intel® Server Management Professional or Advanced modules must be ordered for installation in the system.
9. The SRx850HW4S 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

**SR4850HW4S
4U Platform**





**SR6850HW4S
6U Platform**





Mandatory Accessories


OR

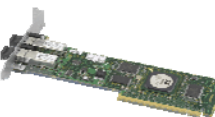
Button Control Panel **LCD Control Panel**


OR

IMM Professional **IMM Advanced**


6U Only

OR

2nd Power Supply **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: SR4850HW4S

Mandatory Accessories	
Feature	Product
Intel Management Module <i>(Choose one per System)</i>	IMM Professional AHWIMMPRO2
	IMM Advanced AHWIMMADV2
Control Panel <i>(Choose one per System)</i>	Button control panel AXXBCPMOD2
	LCD control panel AXXLCPMOD2
Processor Heat Sinks and Blanks <i>(All 4 sockets must have Processor + Heatsink OR Processor Blank)</i>	Processor heat sink AHWPROCHS <i>NOTE: Boxed processors include this heat sink.</i>
	Processor blank AHWPROCBLANK
Processor VRM <i>(Use with 3 and 4 processors)</i>	Processor core 10.2 VRM AHWVRMPM <i>(one required for each processor used in socket 3 and 4)</i>
	Processor cache 9DO VRM AHWVRMCM <i>(one per system required for iL3 processor used in socket 3 and 4)</i>
Optional Accessories	
Feature	Product
RAID Solutions	Intel® SAS RAID Activation Key AXXRAK18E
	Intel® RAID Smart Battery AXXRSBBU3 <i>(only used with Activation Key above)</i>
Fibre Channel Module	Fibre channel module AHWFCMOD
Rack Mount Solutions	Rack rails AXXRAIL3U7U
	Cable Management Arm AXXCMA3U7U
Memory board	4 DIMM memory board BHW4DIMMM
Front Bezel	4U Front bezel for rack mount AHW4URBEZEL

6. 6U System Part Configurator: SR6850HW4S

Mandatory Accessories	
Feature	Product
Intel Management Module <i>(Choose one per System)</i>	IMM Professional AHWIMMPRO2
	IMM Advanced AHWIMMADV2
Control Panel <i>(Choose one per System)</i>	Button control panel AXXBCPMOD2
	LCD control panel AXXLCPMOD2
Processor Heat Sinks and Blanks <i>(All 4 sockets must have Processor + Heatsink OR Processor Blank)</i>	Processor heat sink AHWPROCHS <i>NOTE: Boxed processors include this heat sink.</i>
	Processor blank AHWPROCBLANK
Processor VRM <i>(Use with 3 and 4 processors)</i>	Processor core 10.2 VRM AHWVRMPM <i>(one required for each processor used in socket 3 and 4)</i>
	Processor cache 9DO VRM AHWVRMCM <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. AHW6UPWR
	Power bay fan. 6U. AHW6UPWRFAN
Optional Accessories	
Feature	Product
RAID Solutions	Intel® SAS RAID Activation Key AXXRAK18E
	Intel® RAID Smart Battery AXXRSBBU3 <i>(only used with Activation Key above)</i>
Fibre Channel Module	Fibre channel module AHWFCMOD
Rack Mount Solutions	Rack rails AXXRAIL3U7U
	Cable Management Arm AXXCMA3U7U
Memory board	4 DIMM memory board BHW4DIMMM
Front Bezel	Front bezel for rack mount AHW6URBEZEL
	Front bezel for pedestal mount AHW6UPBEZEL

7. Base System SKU Configuration Contents



7.1 Table 1: Base System Product Code Contents

Product Code	Description
<p style="text-align: center;">SHW4URM3S A</p>	<p>Intel® Server System SR4850HW4S (Harwich 800T SAS) 4U Rack.</p> <ul style="list-style-type: none"> • 1x Baseboard • 1x Front Panel IO board • 1x Memory Board (1X4) plus bracket • 3x Memory Board Filler Baffles • 0x Intel Management Module (Professional IMM) • 2x Power Supply Module (15Amp, 208) • 1x 1/2" DVD-ROM Drive • 0x Button Control Panel • 1x SAS 4U Backplane Board • 1x Rack Faceplate (Granby) • 5x HDD Carrier (Black) • 1x Base Chassis (Granby) • 0x Power Supply Filler Panel • 0x Processor Thermal Dummy • 2x Fan Module • 1x SATA Cable (Base board to SATA/IDE conversion board) • 1x Front Panel Cable • 1x Drive Power Cable (Tape Backup and DVD-ROM) • 1x Fan Power Cable • 1x Internal SAS Cable (Base board to SAS Backplane) • 1x Internal SAS ROMB Module • 1x Sample Safety Label • 1x System Serial # Label • 1x System Packaging • 1x Rack Handles (Pair)
<p style="text-align: center;">SHW6URM3S A</p>	<p>Intel® Server Platform SR6850HW4S (Harwich 800T SAS) 6U Rack.</p> <ul style="list-style-type: none"> • 1x Baseboard • 1x Front Panel IO board • 1x Memory Board (1X4) plus bracket • 3x Memory filler baffles • 0x Intel Management Module (Professional IMM) • 1x Power Supply Module (15Amp, 110/208) • 1x 1/2" DVD-ROM Drive • 0x Button Control Panel Board • 1x SAS 6U Backplane Board • 1x Rack Faceplate (Gilbert) • 10x HDD Carrier (Black) • 1x Base Chassis (Gilbert) • 0x Processor Thermal Dummy • 6x Fan Module • 1x SATA Cable (Base board to STAT/IDC conversion board) • 1x Front Panel Cable (SCSI to Front Panel) • 1x Drive Power Cable (Tape Backup and DVD-ROM) • 1x Fan Power Cable • 1x Internal SAS Cable (Base board to SAS Backplane) • 1x Internal SAS ROMB Module • 1x Front Connect Cable (100-pin) (Base board to front panel IO board) • 1x Sample Safety Label • 1x System Serial # Label • 1x System Packaging • 1x Rack Handles (Pair)

8. Complete Product Ordering Code Listings

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
	SHW4URM3SA	886995	Intel® Server System SR4850HW4S. 4 Socket, 4U, SAS 3.5"	1	1
	SHW6URM3SA	887385	Intel® Server System SR6850HW4S. 4 Socket, 6U, SAS 3.5"	1	1





8.2 Table 3: Common System Accessory Codes

Image	Product Code	MM / UPC	Description	Qty Per	Min Order
	AXXRAK18E	877661	Intel® SAS 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
Cable	AHWEXTSCSI	869985	Cable: Internal cable for External SCSI port.	1	1
Cable	AHWINTSCSI	869424	Cable: Internal cable for 5.25" peripheral bay.	1	1


8.2.1 Table 4: 4U Unique Accessory Codes for SHW4URM3SA

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 SHW6URM3SA

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
	FXXSROMBSAS18E	878038	Intel® SAS ROMB Module.	1	5
	BHWBASEM	885977	Intel® Server Board SE8501HW4.	1	1
Board	FHWSATAIDE	870273	SATA to IDE conversion board.	1	1
Cable	FHWINTRU	871387	Cable: Intrusion switches 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 3.5" SAS Unique Spare Part Codes for SHW4URM3SA

Image	Product Code	MM / UPC	Description	Qty Per	Min Order
Board	FHW4U3SASBP	876328	SAS 3.5" 4U backplane for SR4850HW4S.	1	1
Cable	FHW4UINTSAS	876302	Cable: Internal SAS ROMB to 4U 3.5" SAS BP cable for SR4850HW4S.	1	1
Kit	AHW4U3SASKIT	882972	SAS 3.5" Conversion kit for SR4850HW4M (SCSI conversion to SAS) - Contains (FHW4UINTSAS, FHW4U3SASBP, FXXSROMBASAS18E)	1	1
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

8.3.2 Table 8: 6U 3.5" SAS Unique Spare Part Codes for SHW6URM3SA

Image	Product Code	MM / UPC	Description	Qty Per	Min Order
Board	FHW6U3SASBP	876358	SAS 3.5" 6U backplane for SR6850HW4S (6U).	1	1
Cable	FHW6UINTSAS	876303	Cable: Internal SAS ROMB to 6U 3.5" SAS BP cable for SR4850HW4S.	1	1
Kit	AHW6U3SASKIT	882993	SAS 3.5" Conversion kit for SR6850HW4M (SCSI conversion to SAS) - Contains (FHW6UINTSAS, FHW6U3SASBP, FXXSROMBASAS18E)	1	1
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

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