



Intel[®] Modular Server

Spares/Parts List and Configuration Guide

A reference guide to assist customers in ordering the necessary components to configure the Intel Modular Server



Revision 2.5

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Enterprise Platforms and Services Marketing

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Revision History

Dec '09	Rev 2.0	Updated MFSYS35, MFS5000SI and MFS5000SIB MM#s
Jan '10	Rev 2.1	Updated MFS5520VI to MFS5520VIR. Added two new processor SKUs
Mar '10	Rev 2.2	Added new processor SKUs
July '10	Rev 2.3	Added MFSADVMGMT & SSD Bundle SKUs
Dec '10	Rev 2.4	Removed SSD Bundle SKUs & added new MFSYS25V2, MFCMM2, MFMIDPLANE2 SKUs
Sep '11	Rev 2.5	Updated ordering code for AXXMFRAIL per PCN 110223-00, removed MFSYS25 chassis (EOL'd), added MFSVRT SKU

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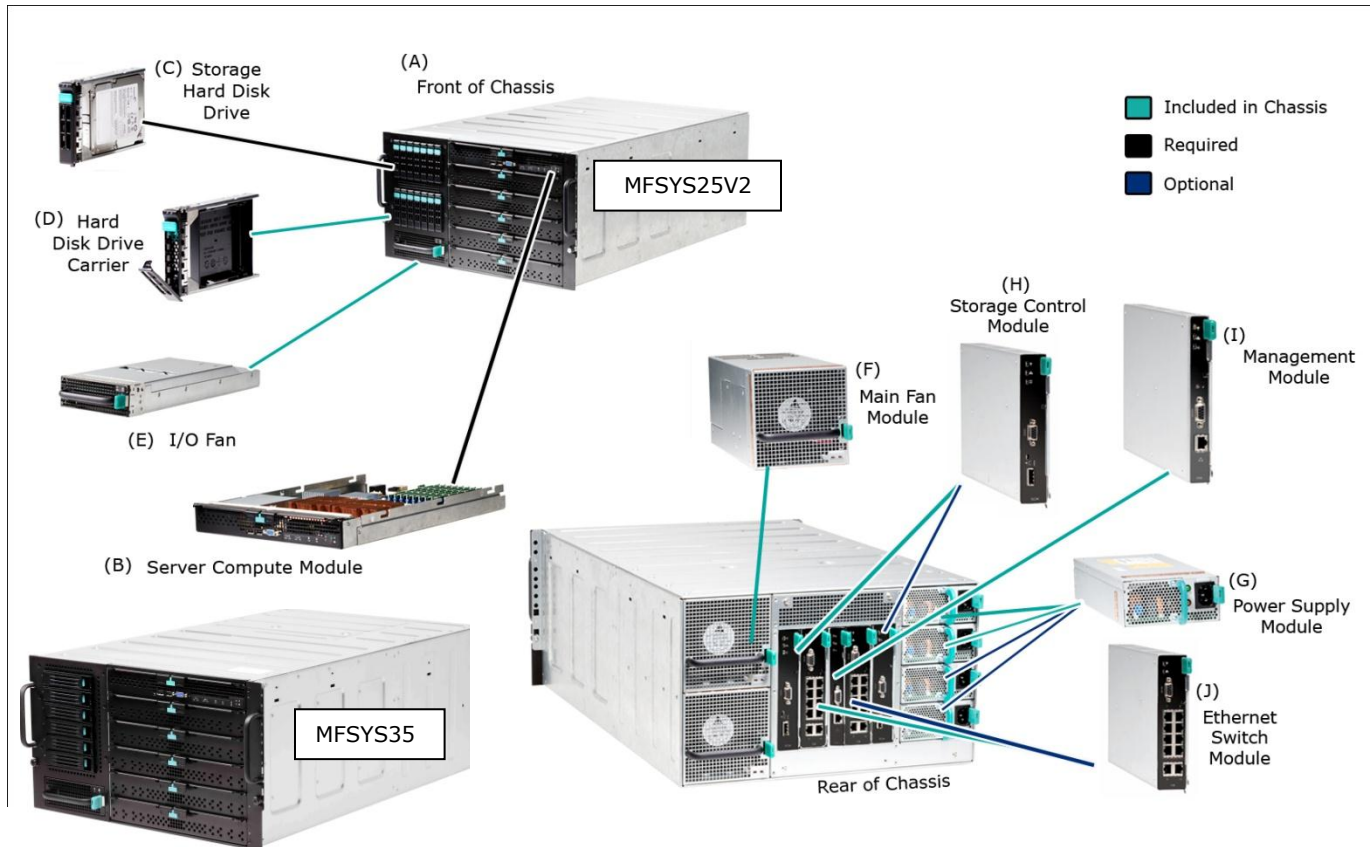
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The Intel® Modular Server Configuration Chart



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|--|--|
| <p>A) Chassis</p> <ul style="list-style-type: none"> - Up to 6 Server Compute Modules <p>B) Server Compute Module: Required</p> <ul style="list-style-type: none"> - MFS5520VIR - Supports multi-core Intel® Xeon® Processors - Up to 12 DDR3 DIMMs - Supports Optional Dual Gigabit Mezzanine expansion card <p>C) Storage Hard Disk Drive: Required</p> <ul style="list-style-type: none"> - Up to fourteen 2.5" SAS drives on MFSYS25V2 - Up to six 3.5" SAS or SATA drives on MFSYS35 <p>D) Hard Disk Drive Carrier:</p> <ul style="list-style-type: none"> - 14 are included in MFSYS25V2 - 6 are included in MFSYS35 <p>E) Hot Swappable I/O Fan Module: Included</p> <ul style="list-style-type: none"> - New I/O Fan (MM# 899168) required if MFSYS25 is converted to MFSYS35 using MFHDDBAY35 | <p>F) Hot Swappable Main Fan Module: Included</p> <p>G) Power Supply Module: 2 Included, 2 Optional</p> <ul style="list-style-type: none"> - N + 1 Redundancy <p>H) Storage Control Module: 1 Included, 1 Optional</p> <ul style="list-style-type: none"> - Up to 2 Storage Control Modules for redundancy <p>I) Management Module: Included</p> <p>J) Ethernet Switch Module: 1 Included, 1 Optional</p> <ul style="list-style-type: none"> - Up to 2 Ethernet Switch Modules - Each module features 10/100/1000GbE Full Duplex Ports |
|--|--|

** Power Supply Notes

- A minimum of one 1000-Watt power supply is required to turn on a compute module
- One power supply will support 1 compute module plus all other modules in the system
- Two power supplies will support up to 3 compute modules (in any slot) plus all other modules in the system
- Three power supplies will support up to 6 compute modules (in any slot) plus all other modules in the system
- Any additional power supplies above minimum required (based on configuration) provides redundancy

Production Product Order Codes

System and Servers

Product Code	MM	Description
MFSYS25V2	910774	Intel® Modular Server System MFSYS25V2 , chassis with integrated 2.5" shared HDD bay. Contains 5 server blanks, 14 2.5" HDD carriers, main and IO fans, 2 power supplies (2 PSU fans), 1 GbE switch (and 1 blank), 1 storage module with battery backup (and 1 blank), and 1 management module. It will not include any hard drives, compute modules or power cords. *Contains new MFCMM2 & MF MIDPLANE2
MFSYS35	902319	Intel® Modular Server System MFSYS35 , chassis with integrated 3.5" shared HDD bay. Contains 5 server blanks, 6 3.5" HDD carriers, main and IO fans, 2 power supplies (2 PSU fans), 1 GbE switch (and 1 blank), 1 storage module with battery backup (and 1 blank), and 1 management module. It will not include any hard drives, compute modules or power cords. *Contains new power supplies
MFS5520VIBR	905717	Intel® Compute Module MFS5520VIR (bulk pack) , server board in a diskless compute module enclosure. It will include two passive heatsinks but not include CPUs or memory. <i>**Bulk packs are still ordered as individual units, therefore qty's of 3 must be ordered.</i>
MFS5520VIR	905716	Intel® Compute Module MFS5520VIR , server board in a diskless compute module enclosure. It will include two passive heatsinks but not include CPUs or memory.

Optional Spares & Accessories

Product Code	MM	Description
MFCMM2	910036	Intel® Management Module MFCMM2 , management module for MFSYS25V2
MF MIDPLANE2	910888	Midplane for MFSYS25V2 chassis which includes SD Flash
AXXSCM3S	891831	Intel® Storage Controller , SAS storage module (including battery backup)
AXXSW1GB	891842	Intel® Gigabit Ethernet Switch , GB ethernet switch module
AXXPSU	902463	1000Watt Power Supply Module
AXXGBIOMEZ	891844	(Bulk pack) Dual Gigabit Ethernet I/O Expansion Mezzanine Card for MFS5000SI (Qty 3 in box) <i>**Bulk packs are still ordered as individual units, therefore qty's of 3 must be ordered.</i>
AXXGBIOMEZV	901362	(Bulk pack) Dual Gigabit Ethernet I/O Expansion Mezzanine Card for MFS5520VIR (Qty 3 in box) <i>**Bulk packs are still ordered as individual units, therefore qty's of 3 must be ordered.</i>
AXXMFRAIL	908287	Tool-less Rail kit. Ordering code changed per PCN110223 - 00
AXXTM3SATA	903639	(Bulk pack) 2.5" SATA to SAS Converter Board (Qty 5 in box) <i>**Bulk packs are still ordered as individual units, therefore qty's of 5 must be ordered.</i>

Optional Spares & Accessories Cont'd

Product Code	MM	Description
MFSVRT	917138	Intel® Modular Server Virtualization Manager - virtualization management and hypervisor integrated into Intel Modular Server GUI, Paper Pack ID key. Supported on the MFSYS25V2 chassis only, and requires MFSLUNKEY. See note at bottom.
MFSLUNKEY	901238	Intel® Shared LUN Paper Pack ID Key
MFSLUNCOPY	903085	Intel® Modular Server Storage Management Pack (formerly LUN Copier) Paper Pack ID Key
MFSADVMGMT	906993	Intel® Modular Server Advanced Management Pack Paper Pack ID Key
MFSCMBBU	892207	Storage Battery back-up spare
MFHDDBAY25	892137	2.5" HDD Bay Module. Kit includes interposer & storage backplane, bezel with 8 screws. No HDD carriers
MFHDDBAY35	892139	3.5" HDD Bay Module. Kit includes interposer & storage backplane, bezel with 8 screws. No HDD carriers. To use MFHDDBAY35 in MFSYS25, new MFIOFAN is required if not using MFSYS25 TA# D91400-008 or greater.
MFPSUFAN	892195	Blank Power Supply Fan module
MFMAINFAN	892170	Main Fan module
MFIOFAN	899168	IO Fan module. When using MFHDDBAY35 in MFSYS25, MM# 899168 is required if not using MFSYS25 with TA# D91400-006 or greater.
FMIDPLANE	899916	Midplane for MFSYS25 / MFSYS35 chassis which includes SD Flash
MFCMM	891834	Intel® Management Module MFCMM , management module for MFSYS25 / MFSYS35
FXX25HDDCAR	881681	2.5" hard drive carrier blank – spare. As used on other EPSD systems. MOQ: 10
FPWRCABLENA	879287	Power Cord – North American
FXX10DVCARBLK	880265	3.5" hard drive carrier blank – spare. As used on other EPSD systems. MOQ: 10

Note for MFSVRT: The Intel® Modular Server Virtualization Manager key includes a free Intel® Modular Server Software Maintenance key which allows software updates for a period of one year from the date the Virtualization Manager key is initially installed. During this one year period you will be able to install any available product software updates which includes firmware for individual chassis components, management firmware, server BIOS, user interface, and virtualization software subject to the terms and conditions of the End User License Agreement. At the end of the free one year period a new Intel® Modular Server Software Maintenance key must be purchased and installed in order to install any software updates.

- **Supported Boxed Processors for MFS5000SI**

The Intel Modular Server System uses standard 1U heatsinks found in the active boxed processors

Product Code	MM	SL	Description
BX805565110A	892147	SLAGE	1.60GHz 1066MHz 4MB Dual-Core Intel® Xeon® Processor 5110
BX805565120A	892150	SLAGD	1.86GHz 1066MHz 4MB Dual-Core Intel® Xeon® Processor 5120
BX805565130A	892166	SLAGC	2.00GHz 1333MHz 4MB Dual-Core Intel® Xeon® Processor 5130
BX805565140A	892167	SLAGB	2.33GHz 1333MHz 4MB Dual-Core Intel® Xeon® Processor 5140
BX805565150A	892171	SLAGA	2.66GHz 1333MHz 4MB Dual-Core Intel® Xeon® Processor 5150
BX805565160A	892194	SLAG9	3.00GHz 1333MHz 4MB Dual-Core Intel® Xeon® Processor 5160
BX80563E5310A	892333	SLAEM	1.60GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor E5310
BX80563E5320A	892331	SLAEL	1.86GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor E5320
BX80563E5335A	892329	SLAEK	2.00GHz 1333MHz 8MB Quad-Core Intel® Xeon® Processor E5335
BX80563E5345A	892328	SLAEJ	2.33GHz 1333MHz 8MB Quad-Core Intel® Xeon® Processor E5345
BX80574E5405A	894832	SLAP2	2.00GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor E5405
BX80574E5410A	894829	SLANW	2.33GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor E5410
BX80574E5420A	894828	SLANV	2.50GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor E5420
BX80574E5430A	894825	SLANU	2.66GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor E5430
BX80574E5440A	894823	SLANS	2.83GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor E5440
BX80574E5450A	894821	SLANQ	3.00GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor E5450
BX80574L5410A	894836	SLAP4	2.33GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor L5410
BX80574L5420A	894833	SLARP	2.5GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor L5420

Supported Tray Processors for MFS5000SI

Product Code	MM	SL	Description
HH80556KH0254M	891733	SLAGE	1.60GHz 1066MHz 4MB Dual-Core Intel® Xeon® Processor 5110
HH80556KH0364M	891732	SLAGD	1.86GHz 1066MHz 4MB Dual-Core Intel® Xeon® Processor 5120
HH80556KJ0414M	891731	SLAGC	2.00GHz 1333MHz 4MB Dual-Core Intel® Xeon® Processor 5130
HH80556KJ0534M	891730	SLAGB	2.33GHz 1333MHz 4MB Dual-Core Intel® Xeon® Processor 5140
HH80556KJ0674M	891708	SLAGA	2.66GHz 1333MHz 4MB Dual-Core Intel® Xeon® Processor 5150
HH80556KJ0804M	891706	SLAG9	3.00GHz 1333MHz 4MB Dual-Core Intel® Xeon® Processor 5160
AT80573KJ0936M	898612	SLBAS	3.33GHz 1333MHz 6MB Dual-Core Intel® Xeon® Processor X5260
HH80563QH0258M	891121	SLAEM	1.60GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor E5310
HH80563QH0368M	891118	SLAEL	1.86GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor E5320
HH80563QJ0538M	891115	SLAEJ	2.33GHz 1333MHz 8MB Quad-Core Intel® Xeon® Processor E5345
AT80574KJ041N	898600	SLBBP	2.00GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor E5405
AT80574KJ053N	898580	SLBBC	2.33GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor E5410
AT80574KJ060N	898596	SLBBL	2.50GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor E5420
AT80574KJ067N	898594	SLBBK	2.66GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor E5430
AT80574KJ073N	898592	SLBBJ	2.83GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor E5440
AT80574KJ080N	898599	SLBBM	3.00GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor E5450
HH80563JH0258M	891119	SLAEQ	1.60GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor L5310
HH80563JH0368M	891120	SLAEP	1.86GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor L5320
AT80574JJ053N	898603	SLBBS	2.33GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor L5410
AT80574JJ060N	898602	SLBBR	2.5GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor L5420
AT80574JJ067N	898601	SLBBQ	2.66GHz 1333MHz 12MB Quad-Core Intel® Xeon® Processor L5430

Supported Boxed Processors for MFS5520VIR

Product Code	MM	SL	Description
BX80602X5570	901025	SLBF3	2.93GHz 1333MHz 8MB Quad-Core Intel® Xeon® Processor X5570
BX80602X5560	901026	SLBF4	2.8GHz 1333MHz 8MB Quad-Core Intel® Xeon® Processor X5560
BX80602X5550	901027	SLBF5	2.66GHz 1333MHz 8MB Quad-Core Intel® Xeon® Processor X5550
BX80602E5540	901028	SLBF6	2.53GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor E5540
BX80602E5530	901029	SLBF7	2.4GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor E5530
BX80602E5520	901030	SLBFD	2.26GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor E5520
BX80602E5506	901031	SLBF8	2.13GHz 800MHz 4MB Quad-Core Intel® Xeon® Processor E5506
BX80602E5504	901032	SLBF9	2GHz 800MHz 4MB Quad-Core Intel® Xeon® Processor E5504
BX80602E5502	901022	SLBEZ	1.86GHz 800MHz 4MB Dual-Core Intel® Xeon® Processor E5502
BX80602L5530	903280	SLBGF	2.4GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor L5530
BX80614X5670	907466	SLBV7	2.93GHz, 12MB L3 Cache, 1333 MHz, 6C Intel® Xeon® Processor X5670
BX80614X5660	907464	SLBV6	2.80GHz, 12MB L3 Cache, 1333 MHz, 6C Intel® Xeon® Processor X5560
BX80614X5650	907463	SLBV3	2.66GHz, 12MB L3 Cache, 1333 MHz, 6C Intel® Xeon® Processor X5650
BX80614E5640	907460	SLBVC	2.66GHz, 12MB L3 Cache, 1066 MHz, 4C Intel® Xeon® Processor E5640
BX80614E5630	907459	SLBVB	2.53GHz, 12MB L3 Cache, 1066 MHz, 4C Intel® Xeon® Processor E5630
BX80614E5620	907461	SLBV4	2.4GHz, 12MB L3 Cache, 1066 MHz, 4C Intel® Xeon® Processor E5620
BX80614L5640	907462	SLBV8	2.26GHz, 12MB L3 Cache, 1333 MHz, 6C Intel® Xeon® Processor L5640
BX80614L5630	907465	SLBVD	2.13GHz, 12MB L3 Cache, 1066 MHz, 4C Intel® Xeon® Processor L5630

Supported Tray Processors for MFS5520VIR

Product Code	MM	SL	Description
AT80602000765AA	900835	SLBF3	2.93GHz 1333MHz 8MB Quad-Core Intel® Xeon® Processor X5570
AT80602000768AA	900836	SLBF4	2.8GHz 1333MHz 8MB Quad-Core Intel® Xeon® Processor X5560
AT80602000771AA	900837	SLBF5	2.66GHz 1333MHz 8MB Quad-Core Intel® Xeon® Processor X5550
AT80602000789AA	900838	SLBF6	2.53GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor E5540
AT80602000792AA	900839	SLBF7	2.4GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor E5530
AT80602002091AA	900840	SLBFD	2.26GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor E5520
AT80602000798AA	900841	SLBF8	2.13GHz 800MHz 4MB Quad-Core Intel® Xeon® Processor E5506
AT80602000801AA	900842	SLBF9	2GHz 800MHz 4MB Quad-Core Intel® Xeon® Processor E5504
AT80602000804AA	900400	SLBEZ	1.86GHz 800MHz 4MB Dual-Core Intel® Xeon® Processor E5502
AT80602002937AB	901504	SLBGF	2.4GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor L5530
AT80602000810AA	900843	SLBFA	2.26GHz 1066MHz 8MB Quad-Core Intel® Xeon® Processor L5520
AT80602002712AA	900833	SLBFH	2.13GHz 800MHz 4MB Quad-Core Intel® Xeon® Processor L5506
AT80614005130AA	907411	SLBV7	2.93GHz, 12MB L3 Cache, 1333 MHz, 6C Intel® Xeon® Processor X5670
AT80614005127AA	907409	SLBV6	2.80GHz, 12MB L3 Cache, 1333 MHz, 6C Intel® Xeon® Processor X5560
AT80614004320AD	907406	SLBV3	2.66GHz, 12MB L3 Cache, 1333 MHz, 6C Intel® Xeon® Processor X5650
AT80614005466AA	907416	SLBVC	2.66GHz, 12MB L3 Cache, 1066 MHz, 4C Intel® Xeon® Processor E5640
AT80614005463AA	907415	SLBVB	2.53GHz, 12MB L3 Cache, 1066 MHz, 4C Intel® Xeon® Processor E5630
AT80614005073AB	907407	SLBV4	2.4GHz, 12MB L3 Cache, 1066 MHz, 4C Intel® Xeon® Processor E5620
AT80614005133AB	907412	SLBV8	2.26GHz, 12MB L3 Cache, 1333 MHz, 6C Intel® Xeon® Processor L5640
AT80614005484AA	907417	SLBVD	2.13GHz, 12MB L3 Cache, 1066 MHz, 4C Intel® Xeon® Processor L5630