



Specification Update

Intel® Modular Server System MFSYS25/ Intel® Compute Module MFS5000SI

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Enterprise Platforms and Services Division

Revision History

Date	Modifications
December 2007	Initial release.
January 2008	Addition of erratum #14

Disclaimers

The Specification Update Server System may contain design defects or errors known as errata that may cause the product to deviate from the published specifications. Current characterized errata are documented in this Specification Update.

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Preface

This document is an update to the specifications contained in the *Intel® Modular Server System MFSYS25 Technical Product Specification* and the *Intel® Compute Module MFS5000SI Technical Product Specification*. It is intended for hardware system manufacturers and software developers of applications, operating systems, or tools. It will contain specification changes, specification clarifications, errata, and document changes.

Refer to the *Dual-Core Intel® Xeon® Processor 7200 Series and Quad-Core Intel® Xeon® Processor 7300 Series Specification Update* for specification updates on processors. Items contained in the *Dual-Core Intel® Xeon® Processor 7200 Series and Quad-Core Intel® Xeon® Processor 7300 Series Specification Update* that either do not apply to the product or have been worked around are noted in this document. Otherwise, it should be assumed that any processor errata for a given stepping are applicable to the Printed Board Assembly (PBA) revisions(s) associated with that stepping.

This documentation communicates the following types of changes:

Specification Changes are modifications to the current published specifications for Intel® server boards. These changes will be incorporated in the next release of the specifications. Specification changes include typos, errors, or omissions from the current published specifications. These changes will be incorporated in the next release of the documents.

Specification Clarifications describe a specification in greater detail or further highlight a specification's impact to a complex design situation. These clarifications will be incorporated in the next release of the documents.

Errata are design defects or errors. Errata may cause the server board behavior to deviate from published specifications. Hardware and software designed to be used with any given processor stepping must assume that all errata documented for that processor stepping are present on all devices.

Product Scope

Below are the specific boards, BIOS and components covered by this update.

1. Product Code: MFS5000SI – Intel® Compute Module MFS5000SI

MM #	Server TA #	Server PBA #	BIOS	BMC	Change Description (PCN #)
892778	D91952-003	D70726-404	R30	13.8	Product Launch

2. Product Code: MFS5000SIB – Intel® Compute Module MFS5000SI – 3 Pack

MM #	Server TA #	Baseboard PBA #	BIOS	BMC	Change Description (PCN #)
892856	E19099-01	D70726-404	R30	13.8	Product Launch

3. Product Code: MFSYS25 – Intel® Modular Server System MFSYS25

MM #	System TA #	Midplane PBA #	CMM PBA #	ESM PBA #	SCM PBA #	HDD Bay PBA#	Interposer PBA#	PS TA #	Change Description (PCN #)
892235	D91400-003	D70484-403	D70735-403	D91241-002	D70737-404	D70727-303	D70481-403	D73299-005	Product Launch

4. Product Code: AXXSCM3S – Intel® Storage Controller

MM #	Module TA #	Baseboard PBA #	FW	Change Description (PCN #)
891831	E15895-002	D70737-404	2.91.140.1	Product Launch

5. Product Code: AXXSW1GB – Intel® Gigabit Ethernet Switch AXXSW1GB

MM #	Module TA #	Baseboard PBA #	FW	Change Description (PCN #)
891842	E16069-002	D91241-002	1.0.0.6 / 1.0.0.25	Product Launch

6. Product Code: MFCMM – Intel® Management Module

MM #	Module TA #	Baseboard PBA #	CMM GUI	Change Description (PCN #)
891834	E16293-002	D70735-403	7372	Product Launch

7. Product Code: AXXPSU – 100W Power Supply

MM #	Module TA #	Baseboard PBA #	Change Description (PCN #)
891843	E14835-02	D73299-005	Product Launch

8. Product Code: MFMIDPLANE – Intel® Modular Server System MFSYS25 – Midplane Board

MM #	Baseboard TA #	Baseboard PBA #	Change Description (PCN #)
891832	E19078-001	D70484-403	Product Launch

9. Product Code: AXXGBIOMEZ – Intel® Compute Module MFS5000SI – Dual Gigabit Ethernet Expansion Card

MM #	Board TA #	Board PBA #	Change Description (PCN #)
891844	E15888-002	D70465-302	Product Launch

Summary Tables of Changes

The following tables indicate the errata and the document changes that apply to the Specification Update. Intel intends to fix some of the errata in a future stepping of components, and to account for the other outstanding issues through documentation or specification changes as noted. The tables use the following notations:

Doc: Intel intends to update the appropriate documentation in a future revision.

Fix: Intel intends to fix this erratum in the future.

Fixed: This erratum has been previously fixed.

No Fix: There are no plans to fix this erratum.

Shaded: This erratum is either new or has been modified from the previous specification update.

Table 1. Errata Summary

No.	Plans	Description of Errata
1.	No Fix	Intel® Compute Module MFS5000SI NIC/Activity LEDs do not display a link status
2.	No Fix	Remote floppy is not supported
3.	No Fix	1024x768 Resolution with color depth set to thousands of colors not supported under Red Hat* Enterprise Linux 5.0 64-bit
4.	No Fix	NIC Utility <code>dcreate.exe</code> on MFS500SI -003 Resource CD incomplete
5.	Fix	Event Log may report SMI Timeout Assertion after server power button is pressed
6.	Fix	User is not able to configure different responses to pressing the Server Power button in Microsoft Windows 2003* Enterprise Server Edition.
7.	Fix	Dual Intel® Storage Controller configuration not yet supported in the Intel® Modular Server System MFSYS25
8.	Fix	System Fault LED does not come on if smart devices (SCMs, ESMs, etc.) are completely non-functional
9.	Fix	Deleting an existing assigned virtual drive may result in GUI action failure
10.	Fix	Certain Non-critical Events logged as Critical in GUI
11.	Fix	System Fault LED does not turn on for all critical events
12.	Fix	Email Alerting not enabled by default for three Critical Events
13.	Fix	Removing/Inserting USB devices during BIOS POST may cause system freeze
14.	Fix	Simultaneous Remote KVM installs of OS or applications will not successfully complete

Table 2. Documentation Changes

No.	Plans	Description of Documentation Change
1.	Doc	System Fault LED not depicted in front system views in Intel® Modular Server System MFSYS25 documentation

Following are in-depth descriptions of each erratum / documentation change indicated in the tables above. The errata and documentation change numbers below correspond to the numbers in the tables.

Errata

1. Intel® Compute Module MFS5000SI NIC/Activity LEDs do not display a link status

Problem	Compute Module NIC/Activity LEDs display is OFF instead of ON when link is established.
Implication	Link status of the ports can be verified in the GUI on the Switch Status Tab. The Compute Module NIC/Activity LEDs will blink to show outbound NIC activity; however, the user should refer to the Switch Activity LEDs to verify communication status with the switch.
Workaround	None
Status	No Fix

2. Remote floppy is not supported

Problem	Remote floppy is not supported.
Implication	Customers will not be able to remotely mount a floppy drive during Remote KVM/Media redirection.
Workaround	None
Status	No Fix

3. 1024x768 Resolution with color depth set to thousands of colors not supported under Red Hat* Enterprise Linux 5.0 64-bit

Problem	Video resolution test fails under Red Hat* Enterprise Linux 5.0 64-bit.
Implication	Resolution of 1024x768 with color depth set to thousands of colors fails to enable.
Workaround	None
Status	No Fix

4. NIC Utility `dcreate.exe` on MFS500SI -003 Resource CD incomplete

Problem	MFS500SI Resource CD ROM E12216-003 NIC driver package contains a <code>dcreate.exe</code> file that errors out.
Implication	<code>dcreate.exe</code> is not functional on the MFS500SI Resource CD. If <code>dcreate</code> functionality is required, users can download the complete software stack from support.intel.com by going to http://downloadcenter.intel.com/ , typing in “Network Adapter Drivers for Windows” and selecting the file <code>PRO2KXP.exe</code> .
Workaround	None
Status	No Fix – utility will be removed from CD

5. Event Log may report SMI Timeout Assertion after Server Power button is pressed

Problem	SMI Timeout Assertion is logged as a critical event in the Event Log after the Server Power button is pressed; however, the server powers up normally.
Implication	No system impact – Timeout logic was incorrect, resulting in a false event logging.
Workaround	None
Status	Fix

6. User is not able to configure different responses to pressing the Server Power button in Microsoft Windows 2003* Enterprise Server Edition

Problem	User is not able to configure different responses to pressing the Server Power button in the OS.
Implication	By design the user should be able to configure the response of the Server Power button in the OS to do nothing, prompt for action, standby or hibernate. Changing these settings in the OS has no impact – the power button continues to power down the server.
Workaround	None
Status	Fix

7. Dual Intel® Storage Controller configuration not yet supported in the Intel® Modular Server System MFSYS25

Problem	Dual SCM configuration support not yet included in the MFSYS25 software stack.
Implication	Dual SCM configuration is not supported. Single SCM is only supported in slot 1.
Workaround	None - Dual SCM Support Planned for Q1'08
Status	Fix

8. System Fault LED does not come on if smart devices (SCMs, ESMs, etc.) are completely non-functional

Problem	System Fault LED does not come on if smart devices (SCMs, ESMs, etc.) are completely non-functional.
Implication	Currently, the System Fault LED will only turn on if the device is capable of telling the CMM it has a fault condition. If a device's software is completely inoperable, the System Fault LED may not turn on.
Workaround	None. In the future the GUI will illuminate the System Fault LED if the CMM cannot communicate with the device after ~60 seconds of timeout.
Status	Fix

9. Deleting existing assigned virtual drive may result in GUI action failure

Problem	While deleting an existing assigned virtual drive, GUI action fails with 'Storage subsystem is busy. Please try again in a few minutes.'
Implication	Intermittently - as a user tries to delete a virtual drive, they may receive a message indicating that the SCM is busy. The action will not complete properly until all the servers are shut down and the SCM is physically removed and replaced.
Workaround	None
Status	Fix

10. Certain Non-critical Events logged as Critical in GUI

Problem	GUI logs certain correctable errors as critical in the Event Log
Implication	GUI may incorrectly log correctable errors, such as SBE or mismatched processors installed, as "critical" errors. GUI categorization of the events will be corrected in a future release. Note that correctable errors do not cause the System Fault LED to turn on by design, only critical errors light the LED. The System Fault LED will only light for truly critical or higher severity issues such as MBEs.
Workaround	None
Status	Fix

11. System Fault LED does not turn on for all critical events

Problem	System Fault LED will not turn on as expected when certain critical events occur.
Implication	When the Processor Cache Size Mismatch error occurs, the system will boot into BIOS setup; however, the System Fault LED will not turn on. Additionally when the Correctable Memory Error Threshold is reached, the event will be logged – however, the System Fault LED will not turn on.
Workaround	None
Status	Fix

12. Email Alerting not enabled by default for three Critical Events

Problem	On all critical event error logging, SNMP, and Email Alerting should be enabled by default. However, three Critical Events do not by default have Email Alerting enabled as expected.
Implication	Both SNMP and Email Alerting were not enabled by default in the event policy for the following three events: Storage Subsystem – RAID Level Migration is aborted due to an internal error, CMM m – System Component Unfit, and CMM – CMM Internal Firmware Error.
Workaround	Administrator can go in and enable SNMP and Email Alerting for these three events.
Status	Fix

13. Removing/Inserting USB devices during BIOS POST may cause system freeze

Problem	Removing/Inserting USB devices during BIOS POST may cause system freeze.
Implication	USB device removal during BIOS POST may result in a hung server.
Workaround	Server module must be powered off and back on to recover. Do not remove/insert USB devices during server POST.
Status	Fix

14. Simultaneous Remote KVM installs of OS or applications will not successfully complete

Problem	Attempting to load two Operating Systems or software installations via Remote KVM sessions at the same time on two separate servers using two laptops will not successfully complete.
Implication	Customers will not be able to conduct simultaneous Remote KVM OS or application installations.
Workaround	None
Status	Fix

Documentation Changes

1. System Fault LED not depicted in front system views in Intel® Modular Server System MFSYS25 documentation

Problem	System Fault LED is not identified in the front system view of the Intel® Modular Server System MFSYS25 in the following documents: -008 MFSYS25 User Guide, -003 MFSYS25 Quick Start User's Guide, and -003 MFSYS25 TPS.
Clarification	The System Fault LED is located on the front of the chassis, in-between the I/O Cooling Module and the server in the bottom slot of the chassis.
Status	Fix