Intel® Server Board SE7520BD2 with DDR

Specification Update

Intel Order Number D10400-008



November, 2005

Enterprise Platforms and Services Division – Marketing

Revision History

Date of Revision	Version	Description
October 13, 2004	-001	This document is the first Specification Update for the Intel® Server Board SE7520BD2 with DDR1. Added Errata 1-9.
November 10, 2004	-002	Added Legacy Mode BIOS limitations. Added Documentation Changes 1, 2.
December 8, 2004	-003	Added Errata 10-16.
January 12, 2005	-004	Added Errata 17-20.
February 16, 2005	-005	All Documentation changes and all Fixed and "will not fix" Errata moved to Appendix A of Intel® Server Board SE7520BD2 Technical Product Specification, Version 1.3.
March 16, 2005	-006	Added Errata 21-24.
June 15, 2005	-007	Removed all errata from Appendix A of Intel® Server Board SE7520BD2 Technical Product Specification, Version 1.3 and moved into the Intel® Server Board SE7520BD2 with DDR1 Specification Update for better clarification.
October 19, 2005	-008	Added Erratum 25.

Disclaimers

The Intel® Server Board SE7520BD2 with DDR 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.

Information in this document is provided in connection with Intel products. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel assumes no liability whatsoever, and Intel disclaims any express or implied warranty, relating to sale and/or use of Intel products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other intellectual property right. Intel products are not intended for use in medical, life saving, or life sustaining applications. Intel may make changes to specifications and product descriptions at any time, without notice.

Contact your local Intel sales office or your distributor to obtain the latest specifications and before placing your product order.

Intel, Itanium, Pentium, and Xeon are trademarks or registered trademarks of Intel Corporation.

*Other brands and names may be claimed as the property of others.

Copyright © Intel Corporation 2005. All rights reserved.

Contents

Preface	1
Summary Tables of Changes	3
Errata	
Documentation Changes	18

This page intentionally left blank

Preface

This document is an update to the specifications contained in the *Intel® Server Board SE7520BD2 Technical Product Specification* (Order Number C62349-003). 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 *Intel® Pentium® III Xeon™ Processor Specification Update* (Order Number 244460-021) for specification updates concerning the Pentium® Xeon™ III processor. Items contained in the *Pentium® III Xeon™ Processor 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.

Nomenclature

- 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 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 specifications.
- Documentation Changes include typos, errors, or omissions from the current published specifications. These changes will be incorporated in the next release of the specifications.
- 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.

Product Code	Order Code (MM#)	Top Assembly # (TA#)	Baseboard PBA#	BIOS Rev. / Build #	FRU / SDR
BBDBBSCSI	861103	C75711-605	C44606-605	P1.03.10	6.1.3
BBDBBSCSI	861103	C75711-605	C44606-605	P1.04.00	6.1.3
BBDBBSCSI	867642	C75711-701	C44689-701	P1.03.10	6.1.3
BBDBBSCSI	867642	C75711-701	C44689-701	P1.04.30	6.5.1
BBDBBSCSI	867642	C75711-701	C44689-701	P1.05.00	6.5.2
BBDBBSCSI	867642	C75711-701	C44689-701	P1.07.00	6.5.2
BBDBBSCSI	870124	C75711-801	C44686-801	P8.00.00	6.6.3
BBDBBSATA	863169	C75973-605	C44689-605	P1.03.10	6.1.3
BBDBBSATA	863169	C75973-605	C44689-605	P1.04.00	6.1.3
BBDBBSATA	867819	C75973-701	C44689-701	P1.03.10	6.1.3
BBDBBSATA	867819	C75973-701	C44689-701	P1.04.30	6.5.1
BBDBBSATA	867819	C75973-701	C44689-701	P1.05.00	6.5.2
BBDBBSATA	867819	C75973-701	C44689-701	P1.07.00	6.5.2
BBDBBSATA	870123	C75973-801	C44689-801	P8.00.00	6.6.3
BBDVBB	858578	C75460-605	C44606-605	P1.03.10	6.1.3
BBDVBB	858578	C75460-605	C44606-605	P1.04.00	6.1.3
BBDVBB	867818	C75460-701	C44606-701	P1.03.10	6.1.3
BBDVBB	867818	C75460-701	C44606-701	P1.04.30	6.5.1
BBDVBB	867818	C75460-701	C44606-701	P1.05.00	6.5.2
BBDVBB	867818	C75460-701	C44606-701	P1.07.00	6.5.2
BBDVBB	870123	C57460-801	C44688-801	P8.00.00	6.6.3
SE7520BD2SCSI	858594	C71062-001	C44686-605	P1.03.10	6.1.3
SE7520BD2SCSI	858594	C71062-001	C44686-605	P1.04.00	6.1.3
SE7520BD2SCSI	857507	C71062-002	C44686-701	P1.03.10	6.1.3
SE7520BD2SCSI	857507	C71062-002	C44686-701	P1.04.30	6.5.1
SE7520BD2SCSI	857507	C71062-002	C44686-701	P1.05.00	6.5.2
SE7520BD2SCSI	857507	C71062-002	C44686-701	P1.07.00	6.5.2
SE7520BD2SCSI	867507	C71062-007	C44686-801	P8.00.00	6.6.3
SE7520BD2	858586	C71063-001	C44689-605	P1.03.10	6.1.3
SE7520BD2	858586	C71063-001	C44689-605	P1.04.00	6.1.3
SE7520BD2	867816	C71063-002	C44689-701	P1.03.10	6.1.3
SE7520BD2	867816	C71063-007	C44689-801	P8.00.00	6.6.3

Summary Tables of Changes

The following tables indicate the errata and the document changes that apply to the Intel® Server Board SE7520BD2 with DDR. 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 a future release of the component.

Fixed: This erratum has been previously fixed.

NoFix: 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	Fixed	Memory mirroring is not supported in BIOS P03.10 or P04.00 posted to http://support.intel.com and IBL
2	Fixed	Watchdog timer failed on last boot, intermittent error message displayed during POST
3	Fixed	LSI* 320-1,2 RAID controllers fail to recognize the <ctrl-m> needed to configure during POST</ctrl-m>
4	Fixed	LSI* 320-0 ZCR controllers fail to recognize boot on BIOS P03.10 and P04
5	Plan Fix	Current BIOS does not support Legacy Mode for the onboard Serial ATA (SATA) ports
6	Fixed	Intel® Xeon™ processor E0 stepping SL7DP Processor Microcode is missing
7	Fixed	Intel® Server Chassis SC5300 Hot Swap Back Plane (HSBP) does not include driver support for Microsoft* Windows* 2003 Server and Microsoft* Windows* 2000 Operating Systems
8	Fixed	Front Side Bus mismatch information with P03.10 BIOS
9	No Fix	Microsoft Windows* 2003 and Microsoft Windows* 2000 32-bit version cannot recognize 6GB system memory
10	No Fix	Onboard CTRL <c> RAID 0,1 creation appears to be slow and limit the number of RAID configurations</c>
11	No Fix	Two monitors appear under Microsoft* Windows* device manager
12	Fixed	Wrong front panel identification in configuration label
13	Plan Fix	Cannot enter option ROM utility menu for an Adaptec* Series SCSI/SATA RAID card
14	No Fix	RHEL AS 3.0 U3 32/64 bit OS does not have the driver for onboard SATA (ICH5R) RAID Function
15	Plan Fix	Hot Swap fan fault LED turns on unexpectedly when an Intel® Server Board SE7520BD2 is installed in an Intel® Server Chassis SC5300LX
16	Fixed	Updating HSBP firmware failed on four or six HDD boards.
17	Fixed	Server Board Configuration Label has incorrect SSI Front Panel connector pin-out
18	Fixed	Server Board Configuration Label has incorrect NIC1 and NIC2 order. NIC1 is the upper NIC

No.	Plans	Description of Errata
19	Fixed	System fault LED glowing continuously SE7250BD2 -605 boards
20	Plan Fix	BMC timestamp erratum
21	No Fix	Silent data corruption may be exhibited using SuSE Linux 9.1 Professional operating system (Kernal 2.6.4-52-SMP)t
22	No Fix	Platform Confidence Test (PCT) versions 1.02 and 1.06 error warning message for Soft RAID driver
23	Plan Fix	Intel® Server Chassis SC5300LX and Intel® Server Board SE7520BD2S may not work normally when populated with Intel® Management Module (IMM) firmware 029
24	Fixed	LM93 sensor monitoring is masking information required for proper Baseboard Management Controller (BMC) functionality
25	Plan Fix	Blinking green chassis LED associated with FRUSDR 6.6.6 and later

Table 2. Documentation Changes

No.	Plans	Description of Documentation Change
1.		None at this time

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. Memory Mirroring is Not Supported in BIOS P03.10 or P04.00 that is posted to http://Support.Intel.Com and IBL

Problem: Production BIOS versions P03.10 and P04.00 do not support the Memory

Mirroring capability. The feature is disabled in the BIOS <F2> setup.

Implication: Customers will not be able to use the Memory Sparing capability.

Workaround: None.

Status: This erratum has been fixed in BIOS revision P07.00 and later.

2. Watchdog Timer Failed On Last Boot, Intermittent Error Message Displayed During POST

Problem: The Intel® Server Board SE7520BD2 has been found to intermittently manifest

the following false error message during boot:

Error (8190): Watchdog timer failed on last boot.

Implication: The error message falsely conveys that the board failed to execute BIOS code

and failed to disable a timer before expiration.

Intel found that this false error message is caused by the onboard platform instrumentation not consistently recognizing the BIOS command to disable the timer. This anomaly is present on the server boards with FRU/SDR version BD-6.2.1 and earlier. Currently, the Intel® Server Board SE7520BD2 ships with FRU/SDR version 6.2.1 pre-installed from Intel's factory, version 6.1.3 of the FRU/SDR is also included on the Intel® Express Installer CD (P.N. C60160-

002) shipped with the board.

Workaround: FRU/SDR version BD-6.4.1 addresses this anomaly on the Intel® Server Board

SE7520BD2. The FRUSDR 6.4.1 is now available at http://support.intel.com. Customers should refrain from using the FRUSDR available on the Intel® Express Installer CD and should update the server board with the version

available from the Intel web site to prevent this anomaly.

Status: Current boards are shipping with FRU/SDR version BD-6.5.1 pre-installed from

factory and with an updated Intel® Express Installer CD.

3. LSI* 320-1,2 RAID Controllers Fail To Recognize the <CTRL-M> Needed To Configure During POST

Problem: LSI* 320-1, 2 RAID controllers fail to recognize the <CTRL-M> needed for

configuration during POST.

Implication: Configuring a RAID array is not possible.

Workaround: None.

Status: This erratum has been fixed in BIOS revision P04.00 and later.

4. LSI* 320-0 ZCR Controllers Fail To Recognize Boot On BIOS P03.10 and P04

Problem: LSI* 320-0 ZCR fails to boot and be recognized at current BIOS levels. The

customer might also see the following error message when attempting to

configure:

BIOS configuration utility: adapter number error, please reboot

the system.

Implication: Configuring the Zero Channel RAID (ZCR) is not possible.

Workaround: The Intel® RAID Contoller SRCZCRX ZCR is fully supported. See the Tested

Hardware and Operating System List rev1.60 at

http://support.intel.com/support/motherboards/server/se7520bd2/sb/CS-

013538.htm for full support details on the Intel-equivalent card.

Status: This erratum has been fixed in BIOS revision P05.00 and later.

5. Current BIOS does not Support Legacy Mode for the On-Board Serial ATA (SATA) ports

Problem: The Intel Server Boards SE7520BD2 (all SKUs) ship with the SATA ports from

the Intel® ICH5-R I/O controller configured in Enhanced Mode as the default. The current BIOS does not provide the user the capability to change the

onboard SATA ports to Legacy Mode.

Implication: A BIOS limitation prevents users from installing and booting legacy operating

systems from the onboard SATA ports when not configured in SATA RAID mode. Data access to SATA drives by legacy operating systems installed on

onboard SCSI controller or alternate HBAs is supported.

Workaround: None.

Status: This erratum may be fixed in a future BIOS revision.

6. Intel® Xeon™ Processor E0 Stepping SL7DP Processor Microcode is Missing

Problem: When using an Intel® Xeon™ Processor E0 stepping SI7DP processor on the

Intel® Server Board SE7520BD2, an error may display indicating "CPU

microcode missing information".

Implication: This issue occurs when the processor microcode is old and needs to be

updated. Such an error warning message indicates that the BIOS cannot

recognize the processor correctly.

Workaround: None.

Status: This erratum has been fixed in BIOS revision P04.30

7. Intel® Server Chassis SC5300 Hot Swap Backplane (HSBP) Missing Driver Support for Microsoft* Windows* 2003 Server and Microsoft* Windows* 2000 Operating Systems

Problem: The Intel® Server Chassis SC5300 HSBP lacks driver support under Microsoft*

Windows* 2003 and Microsoft Windows 2000 operating systems.

Implication: The lack of driver support for the Intel® Server Chassis SC5300 HSBP makes

it impossible to build RAID arrays under these operating systems.

Workaround: None.

Status: The driver has been posted on the Intel support website to fix this issue. Use

the *.inf posted on the support.intel.com website for Microsoft Windows* 2003

and all of the chassis products:

OMicrosoft Windows* 2000 Backplane Driver

[WIN2K_HSBP_INF_FILE.EXE]
1Link to server chassis Website:

http://support.intel.com/support/motherboards/server/chassis/SC5200/

2Direct link to drivers: http://downloadfinder.intel.com/scripts-

<u>df/Detail_Desc.asp?strState=LIVE&ProductID=864&DwnIdID=3318</u>. This is recommended for the Intel Server Chassis SC5300 and Intel Entry Server

Chassis SC5250-E products.

8. Front Side Bus Mismatch Information with P03.10 BIOS

Problem: When using Intel® Xeon[™] Processor E0 stepping processors with the P03.10,

it is possible that the front side bus may report a "front side bus mismatch."

Implication: This is a BIOS issue related with processor initialization.

Workaround: None.

Status: This erratum has been fixed in BIOS revision P04.30

9. Microsoft Windows 2003 and Microsoft Windows 2000 32-bit Version Cannot Recognize 6GB System Memory

Problem: When a customer uses a total of 6GB or more memory on an Intel® Server

Board SE7520BD2 under Microsoft Windows 2003 server edition or Microsoft Windows 2000 operating systems, some system memory is not recognized.

Implication: This issue is caused by Windows operating systems and an Intel® Server

Board SE7520BD2 hardware or BIOS issue.

Workaround: Edit the boot.ini file under the Windows system directory and add the PAE

command to fix this issue.

The content of the boot.ini file should be similar to the following:

[boot loader]
timeout=3

default=multi(0)disk(0)rdisk(0)partition(2)\WINDOWS
default=multi(0)disk(0)rdisk(0)partition(2)\WINDOWS

multi(0)disk(0)rdisk(0)partition(2)\WINDOWS="Windows Server

2003, Enterprise" /fastdetect /pae

C:\="Microsoft Windows"

Status: This erratum will not be fixed.

10. Onboard CTRL <C> RAID 0,1 Creation Appears to be Slow and Limit the Number of RAID Configurations

Problem: When building a low-level RAID 0, 1 (mirror) configuration it appears to be very

slow and never completes. There appears to be a limitation on how many RAID devices a channel can have. Specifically, a mirror can be created on both

cables but only one mirror for the whole controller.

Implication: A user might start building a RAID configuration, but not let it finish. If the

system is rebooted before the configuration is completed the onboard LSI* 1030 controller is even slower than if the RAID configuration was left to complete over several hours. Typically, it takes 1 hour for 10Gigabytes to complete building with the onboard CTRL <C> application. For instance, this

means that for two 70 gigabyte drives configured in a RAID level 1

configuration it will take 6-8 hours to complete. It is even slower if a third drive

is configured in a "hot spare" mirror configuration.

Workaround: Create the RAID 0,1 configuration at the operating system level or use an Intel-

based RAID card for better performance. You will be limited to one RAID configuration per controller. If you have two onboard SCSI channels (cables) as

with the Intel® Server Board SE7520BD2SCSI you will only be able to create

one RAID 0,1 configuration on one of the channels. You will not be able to

create a RAID configuration across the channels (cables).

Status: Intel does not consider this an errata and recommends that you plan

accordingly. For more details on the onboard controller, see the LSI Integrated

RAID User's Guide at: http://support.intel.com.

11. Two Monitors Appear Under Microsoft* Windows* Device Manager

Problem: When operating with a pre-production or production Intel® Management

Module – Advanced (IMM) you will see two monitors listed under the control panel. One will be listed as the "default" or the onboard ATI* RAGE* XL and the other one will be listed as the "Plug and Play Monitor". This issue is not caused

by the IMM but by the ATI VGA chip OPROM.

Implication: A user may be confused when operating with only one monitor and two

monitors display in the Windows device manager. The second monitor is necessary for the Keyboard Video Mouse (KVM) feature of the Advanced

Intel® Management Module.

Workaround: None, this is the intended functionality.

Status: This erratum will not be fixed.

12. Wrong Front Panel Identification on Configuration Label

Problem: On the board layout label, the front panel identification is wrongly identified for

POWER LED and HDD LED. The POWER SWITCH identification is missing.

Implication: The wrong configuration label may confuse some customers.

Workaround: None.

Status: This erratum was fixed in label revision C71061-004.

13. Cannot Enter Option ROM Utility Menu for an Adaptec* Series SCSI/SATA RAID Card

Problem: Cannot access the option ROM utility menu for an Adaptec* Series SCSI/SATA

RAID card.

Implication: A customer cannot enter the Adaptec RAID setup menu by pressing

<Ctrl>+<A> or <Ctrl>+<M>.

Workaround: None.

Status: This erratum may be fixed in a future BIOS revision.

14. RHEL AS 3.0 U3 32/64 bit operating system does not have the Driver for Onboard SATA (ICH5R) RAID Function

Problem: RHEL AS 3.0 U3 32/64 bit operating system does not have the driver for the

onboard SATA (ICH5R) RAID function.

Implication: Customer cannot usethe ICH5R soft RAID function.

Workaround: No workaround to this issue.

Status: This erratum will not be fixed by Intel. Driver deployment is the responsibility of

the operating system vendor.

15. Hot Swap Fan Fault LED Turns On Unexpectedly When an Intel® Server Board SE7520BD2 is Installed in an Intel® Server Chassis SC5300LX

Problem: The Hot-swap Fan Fault LED on Intel® Server Board SE7520BD2 will be

turned on unexpectedly when the board is installed in an Intel® Server Chassis

SC5300LX.

Implication: The cstomer will see the hot-wap fan fault LED turned on unexpectedly in the

hardware configuration that mentioned above.

Workaround: None.

Status: This erratum has been fixed in FRUSDR revision 6.5.2.

16. Updating HSBP Firmware Failed on four or six HDD Boards

Problem: Customer can not update HSBP firmware for four or six HDD enclosures.

Implication: Customers will not be able to update the HSBP firmware on Intel® Server

Board SE7520BD2 revision -200 or earlier.

Workaround: None.

Status: This erratum has been fixed in board revisions -300 and later.

17. Server Board Configuration Label has Incorrect SSI Front Panel Connector Pin Out

Problem: The server board configuration label has incorrect SSI Front Panel Connector

pin-out.

Implication: The wrong configuration label may confuse some customers.

Workaround: None.

Status: This erratum was fixed in label revision -004.

18. Server Board Configuration Label has Incorrect NIC1 and NIC2 Order

Problem: The server board configuration label has the labelling for the NIC1 and NIC2

connectors reversed. NIC1 is the upper NIC.

Implication: The wrong configuration label may confuse some channel customers.

Workaround: None.

Status: This erratum was fixed in label revision -005.

19. System Fault LED Glowing Continuously on SE7250BD2-605 Boards

Problem: The onboard system fault LED continuously glows on the Fab -605 board.

Implication: Customers may feel that the LED is working abnormally and that the board may

have problems when actually the board is OK. The problem is caused by software. Intel® Management Module firmware and an older version of the

FRU/SDR cause this error.

Workaround: None.

Status: This erratum has been fixed in BIOS revision P07.00

20. BMC Timestamp Erratum

Problem: The Intel® Server Board SE7520BD2 has a BIOS erratum that causes the

BMC timestamp information to be incorrect. Beginning on January 1, 2005, the BMC date will lag the system date by one day. The system date of January 1, 2005, will appear as December 31, 2004 in the BMC, and the BMC will be one day behind thereafter. An additional day is lost on January 1 of each year that

follows a leap year, i.e., 2009, 2013, etc.

Implication: The BMC will use the incorrect date for all entries in the System Event Log

(SEL) maintained by the BMC. This includes informational events as well as error events, e.g., memory error events. Other BMC functions are unaffected.

Workaround: None.

Status: This erratum may be fixed in a future BIOS revision.

21. Silent Data Corruption May be Exhibited Using SuSE* Linux 9.1 Professional Operating System (Kernal 2.6.4-52-SMP)

Problem: SuSE* Linux 9.1 Professional operating system (kernel 2.6.4-52-smp) can

exhibit silent data corruption on server boards based on the Intel® E7520

chipset.

Implication: Investigation determined the data corruption stemmed from a race condition in

reiser file system that ships with SuSE Linux 9.1 Professional OS (2.6.4-based kernel). Although the reiser file system is the default file system used by SuSE Linux; tests of alternative file systems supported by the operating system have not manifested this data corruption. All investigations and test results ascertain that this anomaly only affects the IA32 and IA32e versions of the SuSE Linux 9.1 Professional operating system. This anomaly is expected to be addressed

by the operating system vendor on the SuSE Linux Enterprise Server 9.0 version when officially released in early August 2004. SuSE Linux 9.1 Professional version will not be stress tested nor supported on Intel E7520 server platforms.

Workaround: None.

Status: This erratum will not be fixed.

22. Platform Confidence Test (PCT) Versions 1.02 and 1.06 Error Warning Message for Soft RAID Driver

Problem: When runnning the Platform Confidence Test (PCT)1.02 and PCT 1.06 testing

programs on Intel® Server Board SE7520BD2 after having built a SATA soft

RAID1 with two SATA hard drives, warning message is displayed:

Unable to process file: Missing third token line 189 of

:\selfsens.cfg "ide_primary_slave.model_number="

Standard Error Code = 01300002".

Implication: This is a SATA driver issue. PCT software is a testing tool in DOS; if you build

soft RAID in DOS, there is no proper driver to support the soft SATA RAID

function, which leads to the warning message.

Workaround: None.

Status: This erratum will not be fixed.

23. Intel® Server Chassis SC5300LX and Intel® Server Board SE7520BD2S May Not Work Normally When Populated with Intel® Management Module (IMM) Firmware 029

Problem: IMM BMC firmware inconsistencies may include:

3Hot-swap fan does not work

4Board warning and fan warning LEDs do not work normally.

Front panel LED does not work normally

Implication: This issue is caused by IMM firmware. This was not observed when the IMM

professional module was removed from the Intel® Server Board SE7520BD2.

Workaround: None.

Status: This erratum has been fixed with the IMM firmware revision 0.36.

24. LM93 Sensor Monitoring is Masking Information Required for Proper Baseboard Management (BMC) Controller Functionality

Problem:

The Intel® Server Board SE7520BD2 has been found to have an issue in which the LM93 monitoring chip is masking events generated by specific system sensors. This is happening because the LM93 part is operating in an S4/S5 sleep mode. Masked events are not passed to the Baseboard Management Controller (BMC) for sensor readings, event logging or event processing. The following sensors attached to the LM93 are masked by this issue: IERR, Thermal Trip, SCSI Term Error, VRD Thermal Mon, Proc Hot & Throttling.

Implication:

Sensors that are masked by this issue will not have current readings available from the BMC. These events may not be logged in the BMC's System Event Log and BMC functions that require current readings for these sensors may not operate. This includes the automatic NMI that the BMC generates when it detects an IERR.

Workaround: None.

Status: This erratum has been fixed in BIOS revision P07.00.

25. Blinking Green Chassis LED Associated with FRUSDR 6.6.6 and Later

Problem

SE7520BD2V (PBA versions C44688-801 or later) server boards utilizing the Intel® Management Module (IMM) Advanced Edition or Professional Edition in a SC5300 LX, SC5300 BRP or SC5300 Base chassis may exhibit a blinking green system status LED. The System Event Log does not indicate a degraded system condition.

As stated in the Intel[®] Technical Product Specification (TPS) for the SC5300 chassis, a blinking green light indicates the system is ready but in a degraded condition due to CPU, memory or power supply issues.

In addition, a blinking green LED may also indicate a degraded SCSI channel condition.

Implication

The system status LED may be blinking green indicating a degraded system configuration that does not exist.

Workaround

This workaround is intended to alleviate the blinking green LED that is being generated by an incorrect SCSI channel B terminator sensor.

The following workaround **only** applies to PBA revisions C44688-801 or later

Note: The use of this workaround on any board revision other than listed above may result in abherrant board behavior.

- 1) Verify the CPU, memory or power supplies are not the causal factors.
- 2) Download version FRU/SDR package 6.6.6 (or later) to a writable media.
- 3) Using an editor such as Windows* notepad, open the file named 'SBD2BMCQ.SDR'
- 4) Search for the following text: "61 // Sensor Number" See example below.
- 5) To make sure that you will be modifying the correct SDR record, please verify that 23 lines down, the following text exists: "SCSI 2 Term FIt' // String Bytes"
- 6) Find the line: "61 // Sensor Initialization". This line should be 5 lines below the Sensor Number line found in step 3.
- 7) Change the value in this line of text from 61 to 00
- 8) Save the file

Example SBD2BMCQ.SDR file:

```
_SDR_TYPE
               02
SDR TAG
              'SCSI'
_REC_LEN
              002F
 // Sensor Record Header
 004C // Record ID
 51 // SDR Version
 02 // Record Type
 2A // Record Length
 // Record Key Bytes
 20 // Sensor Owner ID
 00 // Sensor Owner LUN
 61 // Sensor Number
 // Record Body Bytes
 07 // Entity ID
 02 // Entity Instance
 61 // Sensor Initialization; change to 00
 C0 // Sensor Capabilities
 1C // Sensor Type
 06 // Event / Reading Base Type
 0300 // Assertion Event Mask
 0000 // Deassertion Event Mask
 0300 // Reading Mask
 C0 // Sensor Units 1
 00 // Sensor Units 2
 00 // Sensor Units 3
 0100 // Sensor Record Sharing
 00 // Positive-going Threshold Hysteresis
 00 // Negative-going Threshold Hysteresis
 00 // Reserved
 00 // Reserved
 00 // Reserved
 00 // OEM
```

CF // Type/Length Code 'SCSI 2 Term Flt' // String Bytes

Status This erratum may be fixed in a future firmware revision.

Documentation Changes

None at this time