



Intel® Server Compute Blade SBXL52

Specification Update

Intel Order Number C83532-009

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Enterprise Platforms and Services Marketing

Revision History

Date	Modifications
07.20.2004	Initial release.
12.14.2004	Update errata.
03.10.2005	Update BIOS, FW information.
04.26.2005	Update errata.
05.25.2005	No update.
06.24.2005	Update BIOS FW information and errata.
07.25.2005	Update errata.
08.23.2005	No update.
08.23.2005	No update.

Disclaimers

The Intel® Server Blade SBXL52 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® Server Compute Blade SBXL52 Installation and User's guide and the Intel® Server Compute Blade SBXL52 Hardware Maintenance Manual and Troubleshooting Guide*. 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 *Intel® Server Compute Blade SBXL52* 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 Compute Blades. 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 blade 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.

Intel® Server Compute Blade SBXL52 Production Shipping Configuration:

Feature	Eval Shipping Configuration
Xeon® Processor	None
Memory Installed	None
IMB bus terminator card	1
Internal Drives	2 IDE HDD mounting bracket, Interposer board, & mounting screws are installed No IDE drives
Add-on I/O Devices	None
BIOS/FW	BIOS Rev 1.01 Build 5 Integrated System Management Processor FW Rev 17 Diagnostics Rev 1.00 BSOT08AUS
Board set	Blade server Board C33131-100 Front Panel C32217-100
SBXL52 Blade Chassis & Bezel	Blade Bezel – C31213-007

SBXL52 Server Compute Blade BIOS Release:

BIOS Release	Build ID	BUILD #	Revision	Build Date
SBXL52B04	BSEO04AUS	04	1.0	04 June 2003
SBXL52B05	BSEO05DUS	05	1.01	30 July 2003
SBXL52B09	BSEO09A	09	1.02	12 Dec. 2003
SBXL52B17	BSEO17AUS	17	1.04	24 Feb. 2004
SBXL52B20	BSEO20AUS	20	1.07	23 Sept. 2004
SBXL52B22	BSEO22AUS	22	1.08	17 May 2005

SBXL52 System Management Processor Firmware:

Firmware Type	Build ID	File Name	Revision
Management H8	BR8T17A		Rev 17
Management H8	BR8T20A		Rev 20
Management H8	BR8T30A		Rev 30
Management H8	BR8T33A		Rev 33
Management H8	BR8T35A		Rev 35

SBXL52 Diagnostics:

Posting IBL	Version	Release	Release Date
21 Jan. 2004	BSOT12A	1.01	NA
24 April 2004	BSOT13AUS	1.02	21 April 2004
11 Feb. 2005	BSOT16AUS	1.04	21 Sept. 2004

Summary Tables of Changes

The following tables indicate the errata and the document changes that apply to the SBXL52. 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.	Fix	IDE raid is currently not supported on SUSE9
2.	Fix	RH AS2.1 – Xserver will not start unless KVM is active
3.	NoFix	Floppy exempt from boot order
4.	Fix	SLES9 - Unable to mount / partition when Gb Ethernet HBA PLMC8492MSG1 is present.
5.	Fixed	Remote Control session hangs.
6.	NoFix	Bootting to disk is not consistent with multiple HD drives and IDE RAID enabled.
7.	NoFix	Windows 2003 – Com1 banged in device manager with SOL enabled.
8.	NoFix	SLES9 Standard install to IDE fails.

Table 2 Documentation Changes

No.	Plans	Description of Documentation Change
1.		

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. IDE RAID is currently not supported on SUSE

Problem: IDE RAID is currently not supported on SUSE LINUX Enterprise Server 9. Issue is caused by a native IDE RAID driver in the kernel not allowing the specific Blade Driver to be loaded.

Status: Intel is driving SUSE to fix in a future update.

2. RH AS2.1 – Xserver will not start unless KVM is active

Problem: If you fully boot an SBXL52 without the KVM active on that blade and then switch the KVM to that blade, RH reports that the Xserver could not start and asks if you'd like to run the Xconfigurator. If you choose no, X is disabled for future boots and it sends you to a terminal login prompt. If you say yes, Xconfigurator runs, and a regular GUI login prompt eventually comes up.

Status: To be fixed.

3. Floppy exempt from boot order

Problem: If a BIOS update diskette is in the floppy drive, no matter what kind of boot sequence you set, system will boot from the floppy first.

Status: Working as designed. A BIOS flash diskette is given preference over any boot order, a normal DOS diskette will follow regular boot order.

4. SLES9 unable to mount / partition when Ethernet HBA PLMC8492MSG1 presents

Problem If SLES9-RC5 is installed to a single IDE drive in the primary slot on an SBXL52 blade. And there's a PLMC8492MSG1 NIC in the second add-in slot. Upon system reset, a kernel panic occurs when init tries to mount /, giving an error to the effect of "unable to mount /dev/hda3, no device found".

Workaround Remove the PLMC8492MSG1 prior to installing OS. Re-install the Hinton when install complete.

5. Remote Control session hangs

Problem	On the client machine the "Remote Console" pane within the "Remote Control" child window freezes when KVM is switched from one SBXL52 Blade to another. The "KVM Media Tray" pane continues to work mostly but occasionally goes blank. Changing the KVM or media tray would change the local owner on the chassis accordingly but the "Remote Console" pane remains frozen. Requires CMM reset to kill the Remote Control session. Same behavior noted with both Laural and McCarran Blades. Various Blade combination of SBXL52 only, SBX44 only or SBXL52 and SBX44 mixed together were tried and all resulted in same symptoms.
Status	Fixed with SBXL52 BIOS BSEO22AUS CMM FW BREO57K

6. Booting to disk is not consistent with multiple HD drives and IDE RAID enabled

Problem	With multiple drives in the system booting is inconsistent. With IDE RAID configured, the system only boots to the IDE RAID and will not boot to the bootable SCSI HD no matter what you set in the boot sequence.
Workaround	Install system to IDE RAID when IDE RAID is enabled.

7. Windows 2003 – Com1 banded in device manager with SOL enabled.

Problem	The COM 1 port used with SOL is intermittently banded in windows when first enabled. If the port is rescanned the bang goes away.
Status	Will not fix.

8. SLES9 Standard Install to IDE fails.

Problem	When installing SLES9-RC5 (first seen on RC2) to IDE hard drive selecting the default installation prompt, the installation hangs while creating the journal for the reiserfs file system on the IDE hard drive. This hang does not occur when using a non-journaling filesystem. Also does not occur when installing to SCSI or SCSI RAID in BSE.
Workaround	Using the safe install option eliminates the hang. Using the standard installation option and adding the boot parameter "barrier=off" also eliminates the hang.

Documentation Changes

No documentation changes are outstanding at this time.