

Monthly Specification Update

Intel[®] Server Board S5500BC
Intel[®] Server System SR1630BC
Intel[®] Server System SC5650BCDP



Revision 10.0

February, 2010

Enterprise Platforms and Services Division - Marketing

Revision History

Date	Modifications
April 2009	Initial release
May 2009	Errata 9 - Excessive Time to Enter or Exit EFI Shell When AHCI is Enabled in BIOS Revision R0037 Document update 1 - Updating information for usable/accessible memory for BMC video/graphic display functions for the onboard Server Engine* LLC Pilot II* video controller
June 2009	Errata 10 - Must use software package with BIOS36/FW36/FRUSDR13 or later when using 4GB memory modules in the SR1630BC
July 2009	Errata 11 - Serial Over LAN (SOL) Will not Automatically Enable Console Redirection When Console Redirection Is Disabled In BIOS Setup
August 2009	Errata 12 - Under Red Hat* Linux 5.3 when in SATA MODE to Compatibility Mode the installation process may take over an hour Errata 13 - Excessive logs get reported after system reboot when running SuSE* Linux 10, with Service Pack 2 x86 Errata 14 - System hang may occur during FRU/SDR update process with the Intel® Server System SR1630BC
September 2009	Errata 15 - System May Not Configure to CLTT Mode when using Unbuffered Memory with Thermal Sensors
November 2009	Errata 16 - Clearing BIOS CMOS in BIOS Revision R0042 May Return an Invalid Date
December 2009	No updates
January 2010	No updates
February 2010	No updates

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Preface

This document communicates product Errata and Documentation Changes & Corrections for the following Intel Server Products:

Intel® Server Board S5500BC
Intel® Server System SR1630BC
Intel® Server System SC5650BCDP

Refer to the *Intel® Xeon® Processor 5500 Sequence Specification Update* for specification updates concerning the Intel® Xeon® Processor 5500 Sequence. Items contained in the *Intel® Xeon® Processor 5500 Sequence Specification Update* that either do not apply to the Monthly Specification Update 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.

The following defines items communicated in this document.

Specification Changes are modifications to the current published specifications for a given product. These include typos, errors, or omissions. Specified changes will be incorporated in the next release of the document.

Specification Clarifications describe a supported feature or function in greater detail or further highlight their impact to a complex design requirement. These clarifications will be incorporated in the next release of the document.

Errata are design defects or deviations from current published specifications for a given product. Published errata may or may not be corrected.

- 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.

Summary Tables of Changes

The following tables provide an overview of known errata and known document changes that apply to the specified Intel Server Products. The tables use the following notations:

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

Fix Intel intends to correct this erratum.

Fixed This erratum has been corrected.

NoFix There are no plans to correct this erratum.

Shaded This item is new or has been modified from the previous specification update.

Table 1. Errata Summary

No.	Plans	Description of Errata
1.	Fix	Errors are reported during the installation of SuSE SLES 10 EM64T
2.	Fix	Hyper Threading cannot be disabled in BIOS setup
3.	NoFix	A critical interrupt is logged in the System Event Log (SEL) when installing SuSE SLES 10 32 bit
4.	Fix	Serial Console mode may display extra text or intermingled text
5.	Fix	The PXE boot option is missing in BIOS Setup
6.	Fix	Fans may boost temporarily when BMC is under load
7.	Fix	Extra events may be seen in the SEL during system reset
8.	Fix	BIOS setup may report an incorrect firmware versions
9.	Fix	Excessive Time to Enter or Exit EFI Shell When AHCI is Enabled in BIOS Revision R0037
10.	Fixed	Must use software package with BIOS36/FW36/FRUSDR13 or later when using 4GB memory modules in the SR1630BC
11.	Fix	Serial Over LAN (SOL) Will not Automatically Enable Console Redirection When Console Redirection Is Disabled In BIOS Setup
12.	Fix	Under Red Hat* Linux 5.3 when in SATA MODE to Compatibility Mode the installation process may take over an hour
13.	Fix	Excessive logs get reported after system reboot when running SuSE* Linux 10, with Service Pack 2 x86
14.	Fixed	System hang may occur during FRU/SDR update process with the Intel® Server System SR1630BC
15.	Fixed	System May Not Configure to CLTT Mode when using Unbuffered Memory with Thermal Sensors
16.	Fix	Clearing BIOS CMOS in BIOS Revision R0042 May Return an Invalid Date

Table 2. Documentation Changes

No.	Plans	Document Name	Description of Documentation Change
1.	Doc	Intel® Server Board S5500BC Technical Product Specification	Updating information for usable/accessible memory for BMC video/graphic display functions for the onboard Server Engine* LLC Pilot II* video controller

The following sections provide in-depth descriptions of each erratum / documentation change indicated in the tables above. The errata and documentation change numbers referenced in the following sections correspond to the numbers in the tables above.

Errata

1. Errors are reported during the installation of SuSE SLES 10 EM64T

Problem	When installing SuSE* SLES 10 EM64T with Advanced Error Reporting (AER) capabilities enabled, an AER error is logged in the operating system event log.
Implication	AER uses an optional ACPI requirement, -OCS, that is not available in the S5500 BIOS revisions. There is no functional impact.
Status	This issue may be fixed in a future BIOS revision.
Workaround	None.
TRACKER	35285

2. Hyper Threading cannot be disabled in BIOS setup

Problem	In the BIOS Setup Menu: \Advanced\Processor, setting the Hyper Threading option to disabled will initially indicate the option is disabled. However, when the user re-enters BIOS Setup, the option will be enabled.
Implication	Users that desire to disable Hyper Threading will not be able to do so.
Status	This issue may be fixed in a future BIOS revision.
Workaround	
TRACKER	36104, 36129

3. A critical interrupt is logged in the System Event Log (SEL) when installing SuSE SLES 10 32 bit

Problem	A critical interrupt, PCIe Fat Sensor –[severity] event: Critical Interrupt, is logged during the installation of SuSE SLES 10 32 bit.
Implication	The user will see a PCIe critical event logged. There is no functional impact.
Status	No Fix.
Workaround	Ad “noisapnp” to the command line option to prevent scanning of a ISA plug and play devices.
TRACKER	36051

4. Serial Console mode may display extra text or intermingled text

Problem	When operating in serial console mode, during POST the user may notice 1 of 2 conditions. 1. The user may see the numeral 10 displayed at the top right corner of the screen or 2. The RAID controller information may be intermingled with the platform information displayed by BIOS.
Implication	There is no functional impact associated with this erratum.
Status	This may be fixed in a future BIOS revision.
Workaround	None.

5. The PXE boot option is missing in BIOS Setup

Problem	If a user disables the primary (onboard) video in BIOS Setup, the PXE boot option will disappear from the BIOS Boot Manager.
Implication	Users that desire to utilize the PXE boot option must leave the primary (onboard) video enabled.
Status	This issue may be fixed in a future BIOS revision.
Workaround	None.

6. Fans may boost temporarily when BMC is under load

Problem	The system fans may boost when the BMC is operating under a heavy load. This can include large sequential BMC tasks such as viewing the system event log, configuring the BMC or resetting the system. The fans return to normal automatically after the BMC operations complete
Implication	The systems fans will run at a higher state temporarily, increasing acoustics.
Status	This issue may be fixed in a future BMC release.
WORKAROUND	NONE.

7. Extra events may be seen in the SEL during system reset

Problem	The BMC may log periodic, spurious SEL events during a system reset. These events may appear as fan errors or double appearances of normal events. The
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spurious fan readings will only happen during reset and are not an indication of an actual fan failure. Fan failure events that occur during a reboot should be ignored.

Implication The SEL log may indicate fan errors or double instances of normal events intermittently.

Status This issue may be fixed in a future BMC release.

Workaround None

8. BIOS setup may report an incorrect firmware versions

Problem The BIOS setup screens to display the versions of SDR and ME firmware version may report an incorrect version. The version displayed may be of the previously installed versions.

Implication After firmware update, the BIOS screens may not show the correct version until the system is AC cycled.

Status This issue may be fixed in a future BMC release.

Workaround None.

9. Excessive Time to Enter or Exit EFI Shell When AHCI is Enabled in BIOS Revision R0037

Problem If AHCI is enabled in BIOS setup, it will take the user approximately 3 or more minutes to enter the EFI shell from BIOS Setup and approximately 3 or more minutes to exit the EFI shell.

Implication Users should expect long delays when entering the EFI shell from BIOS setup if AHCI is also enabled.

Status This issue may be fixed in a future BIOS revision.

Workaround None.

10. Must use software package with BIOS36/FW36/FRUSDR13 or later when using 4GB memory modules in the SR1630BC

Problem	The system fans in the SR1630BC do not adequately cool the system when populated with 4GB memory modules
Implication	Users can experience the system to blue screen
Status	This issue can be fixed by installing FRUSDR 13 or later.
Workaround	None.

11. Serial Over LAN (SOL) Will not Automatically Enable Console Redirection When Console Redirection Is Disabled In BIOS Setup

Problem	If console redirection is disabled in BIOS setup SOL will no longer automatically detect this condition and then enable console redirection.
Implication	Console redirection must be enabled in BIOS setup prior to utilizing SOL. Furthermore, the IPMI command <i>SetSystemBootOption</i> to enable console redirection is not supported.
Status	This issue may be fixed in a future BIOS revision or with the optional IPMI command support.
Workaround	None.

12. Under Red Hat* Linux 5.3 when in SATA MODE to Compatibility Mode the installation process may take over an hour

Problem	While trying to change from SATA Mode to Compatibility Mode the installation process may take up to 80 minutes or more to complete.
Implication	Users should expect a long delay when installing Red Hat* Linux under SATA Mode to Compatibility Mode.
Status	This issue may be fixed in a future OS release
Workaround	Connect the hard drive cables to SATA ports 4 and 5 which run off the second SATA controller which will run as native mode regardless of compatibility mode.

Red Hat* Linux workaround installation instructions:

1. Type "linux ide0=noprobe ide1=noprobe" as boot option
2. Continue with installation, after files are copied and at first prompts to reboot, press "Ctrl+Alt+F2" switch to text console
3. vi /mnt/sysimage/boot/grub/grub.conf, to add ide0=noprobe ide1=noprobe at end of each line of "kernel /vmlinuz- ..." definition
4. Save grub configuration, then continue reboot and then complete the rest of the installation.

If the operating system has already been installed, then add ide0=noprobe ide1=noprobe at end of each line of "kernel /vmlinuz- ..." definition in grub.conf will work after reboot.

Tracker 194852

13. Excessive logs get reported after system reboot when running SuSE* Linux 10, with Service Pack 2 x86

Problem	During system reboot excessive logs are getting reported in the system SEL
Implication	During a system reboot the user will see excessive logs being reported into the system SEL
Status	This issue may be fixed in a future OS release
Workaround	These errors occur during the ISA PNP scan. A workaround is to add "noisapnp" to the command line options during operating system installation or modify grub after installation.

Tracker 194891

14. System hang may occur during FRU/SDR update process with the Intel® Server System SR1630BC

Problem	During system reboot excessive logs are getting reported in the system SEL
Implication	User may experience a system hang during the FRU/SDR update process
Status	This issue has been fixed by installing FRUSDR 16 or later.
Workaround	None

15. System May Not Configure to CLTT Mode when using Unbuffered Memory with Thermal Sensors

Problem	When user goes to "CLTT" mode under "System Acoustics and Performance Configuration" --> "Set Throttling Mode" in BIOS version 38. After changing the "Set throttling" mode from default "AUTO" to "CLTT" and saving it by pressing F10 key. In next reboot and entering into BIOS settings, CLTT mode is changes to "OLTT" mode.
Implication	CLTT Mode is the preferred operating mode but when using UDIMM's with thermal sensors the system changes to OLTT mode.
Status	This issue will be fixed in BIOS 41
Workaround	None

16. Clearing BIOS CMOS in BIOS Revision R0042 May Return an Invalid Date

Problem	If the user clears the BIOS CMOS settings via jumper or using the Sysconfig /bldfs switch, the date in BIOS setup may be corrupted and read 09XX.
Implication	An invalid date stamp, 09XX, may be displayed in BIOS setup after clearing BIOS CMOS settings using the jumper or the Syscfg utility resulting in the user having to perform an extra reboot of the system to recover the date in the proper format.
Status	This issue may be fixed in a future BIOS revision.
Workaround	An additional reboot will reset the date format in BIOS setup. However, the user will have to set the date and time to the current local settings.

Documentation Changes

1. Updating information for usable/accessible memory for BMC video/graphic display functions for the onboard Server Engine* LLC Pilot II* video controller

Problem	Current description does not provide information for usable and accessible memory for the controller
Status	Will be fixed in next revision of the Technical Product Specification
Workaround	Intel® S5500BC Server Board support Server Engine* LLC Pilot II* Controller with 64 MB DDR2 memory. 8MB is usable/accessible memory for iBMC video/graphic display functions. The graphics controller internally has access to larger memory for the internal operations. The 32MB memory reported by the new driver(WDM20080228.19663_R2.zip) is the <u>attached memory</u> . Attached memory can be 32MB or greater but only 8MB is accessible for display functions. With 8MB, the iBMC/G200e can only support max resolution of 1600x1000@16bit.