Intel® SR2100 2U Server Chassis

Specification Update

Intel Order Number A63038-001

October, 2001

Enterprise Platforms and Services Marketing

Revision History

Date	Modifications
April, 2001	This document is the first Specification Update for the SR2100 server chassis.
May, 2001	No changes
June, 2001	No new Errata. Updated General Information, SR2050 TA#, HSC rev. and HSBP PBA# to reflect changes specified in PCN #101684-02
July, 2001	Added erratum 5
August, 2001	No new errata.
September, 2001	No new errata.
October, 2001	No new errata

Disclaimers

The Intel® SR2100 2U Server Chassis 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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Contents

Preface

This document is an update to the specifications contained in the *Intel® SR2100 2U Server Chassis Technical Product Specification* (Order Number A63265-001). 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 STL2 Technical Product Specification Update for updates concerning the STL2 server board.

Refer to the Intel® Pentium® III Processor Specification Update for updates concerning the Pentium III processor.

Refer to the Intel® 82440GX PCI Set Specification Update for updates concerning the Intel® 82440GX AGPset.

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[DD1].

Product Code	MM #	TA#	HSC Firmware Rev.	Hot Swap SCSI Backplane PBA#	Flex PCI Riser Card PBA#	Power Supply Part Number
KB3HSRP	833085	A39489-003	0.06	750615-405	A32819-303	A39068-005

Summary Tables of Changes

The following tables indicate the errata and the document changes that apply to the Intel® SR2100 2U Server Chassis. 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.	NoFix	SR2100 chassis HSC firmware update is not possible with the STL2 server board
2.	Fix	SR2100 chassis fault LED is always lit when the STL2 server board is installed
3.	Fixed	RAID card software may show erroneous temperature sensor readings for the STL2/SR2100 system hard disk rive SAF-TE enclosure
4.	Fixed	STL2/SR2100 interaction issue with ICP Vortex* RAID Controller
5.	No Fix	STL2/SC2100 with HSC (0.06) firmware will respond incorrectly to the Adaptec* Controller 29160 SCSI-3 Controller when LUN scan is enabled. The HSC (0.06) firmware is a SCSI-2 device and only responds correctly only to LUN 0 if LUN scan is turned on. The work around is to turn off LUN Scan on all SCSI-3 controllers or use a SCSI-2 compatible controller.

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. Intel® SR2100 chassis HSC firmware update is not possible with the Intel® STL2 Server Board

Problem — It is not possible to update the SR2100 chassis' HSC firmware with the STL2 server board installed in the chassis. This is because the STL2 server board does not support an I^2C* interface connection between the server board and the chassis' hot swap back plane / SAF-TE card. Any changes to the chassis HSC firmware will be made by incorporated by the ECO process.

Implication — It is not possible to update the SR2100 chassis' HSC firmware with the STL2 server board.

Workaround — Order a replacement SR2100 chassis Hot Swap Back Plane by contacting Intel using the normal warranty process. Alternately, the SR2100 chassis' HSC firmware can be updated using a L440GX+ server board. See TA-0351-x for HSC update instructions.

Status — NoFix.

2. The SR2100 chassis fault LED is always lit when the STL2 server board is installed

Problem — The SR2100 chassis front panel boards combine the power LED signal with the fan fault LED signal into a single system fault LED. The STL2 server board implements the power fault LED signal (pin 8 of the front panel connector) as a High True signal. The fan fault LED signal (Pin 6 of the front panel connector) is implemented as a Low True signal. The mixing of the High True power fault LED signal and the Low True fan fault LED signal results in the system fault LED being illuminated whenever power is applied to the system.

Customers with third-party chassis designs utilizing front panels that combine the power fault and fan fault LED signals into a single system fault LED may also experience this issue. Customers with third-party chassis designs utilizing front panels that implement separate discrete power and fan fault LEDs should not experience this issue.

Implication — The system fault LED will be illuminated whenever power is applied to the system when the STL2 board is installed in the SR2100 server chassis.

Workaround — The STL2 server boxed board includes an alternate front panel cable (Intel part number A37010-001) for use with the or SR2100 server chassis, or any third party chassis designs utilizing front panels that combine the power fault and fan fault LED signals into a single system fault LED.

A front panel cable spare kit (FTLFPCBL, MM# 832781) will be available for customers taking the BTLBB SKU that need to use this cable. The alternate front panel cable effectively removes the physical fan fault LED signal from the system fault LED circuit by disconnecting front panel pins 4 and 6, and also re-routes the power fault LED signal from pin 8 to pin 4.

The alternate cable needs to be used in combination with a modified STL2 BMC firmware, version 11.1X, that routes both the power and fan fault LED signals to pin 8 on the STL2 server board, thus forming a single system fault LED. STL2 BMC firmware version 11.1X is included on the STL2 boxed board country kit CDROM and is also available for download from the web at http://support.intel.com/support/motherboards/server/stl2/.

Status Fix. This erratum will be fixed in a future FAB of the STL2 server board.

3. RAID card software may show erroneous temperature sensor readings for the STL2 / SR2100 system hard disk drive SAF-TE enclosure

Problem RAID card monitoring software may show erroneous temperature sensor readings for the STL2/SR2100 system's hard disk drive (HDD) SAF-TE enclosure. The root cause of this issue is that the STL2 server board does not have an IPMB bus to allow monitoring of the HDD SAF-TE card. Therefore, the RAID monitoring software is not able to read actual values from the HDD SAF-TE enclosure.

Implication Monitoring software provided with RAID cards will not correctly monitor the temperature of the STL2/SR2100 systems' HDD SAF-TE enclosure. The temperature sensor readings should be ignored.

Workaround None.

Status Fixed. This issue has been fixed in SR2050/SR2100/STL2 HSC firmware version 0.06 and later versions.

4. STL2/SR2100 Interaction Issue with ICP Vortex* RAID Controller

Problem When using an ICP Vortex RAID controller in a STL2/SR2100 system with Hot Swap Controller (HSC) firmware v. 0.05, an error message is encountered when selecting the option to configure the SR2100 hot swap back plane (HSBP) in the ICP Vortex RAID Controller's advanced setup menu.

Implication This issue has no impact on system functionality. It is not actually possible for the ICP Vortex RAID Controller's Advanced Setup menu to configure the SR2100 HSBP, even if this error message was not encountered.

Workaround This issue has been fixed in a new release of the ICP Vortex firmware.

Status Fixed. This is fixed in STL2/SR2050/SR2100 HSC Firmware version 0.06 and later versions.

5. STL2/SC2100 SCSI-3 Adapter* LUN SCAN Incompatible with SCSI-2 HSC (0.06)

Problem The Adaptec 29160 SCSI-3 controller uses the new LUN addressing scheme of 6 bits or 64 devices, which is incompatible with SCSI-2 LUN addressing scheme of 3 bits of LUN address space or 8 devices. This causes excessive error messages if LUN scan is enabled. The problem is demonstrated with Adaptec 29160 SCSI controller when LUN Scan is enabled.

Implication This issue has no impact on system functionality. It is not possible for the Adaptec 29160 Controller's Advanced Setup menu to configure the SC2100 HSBP and the error messages, {Lun 1 = connected and not active…Lun 2 = connected and not active…. Through Lun 64 = connected and not active}, do not impact system functions.

Workaround Turn off LUN Scan or use a SCSI-2 SCSI adaptor card.

Status Will not fix.

Documentation Changes

None at this time