Intel® SR2050 2U Server Chassis

Specification Update

Intel Order Number A61863-005

September, 2002

Enterprise Platforms and Services Marketing

Revision History

Date	Modifications
November, 2000	This document is the first Specification Update for the SR2050 server chassis.
February, 2001	Added erratum 6
March, 2001	Modified erratum 6 status Updated General Information, SR2050 MM# and TA# to reflect changes specified in PCN #101640-00
April 2001	Modified errata 2, 3 and 6 Added erratum 7
May, 2001	No changes
June, 2001	No new errata Updated General Information TA# and HSC PBA#
July, 2001	Added erratum 8
August, 2001	No new errata
September, 2001	No new errata
October, 2001	Updated Top Assembly, TA, numbers due to PCN 101844-00 and PCN 101857-00
November, 2001	No new errata
January, 2002	No new errata
February, 2002	No changes or new errata
March, 2002	No changes or new errata
May, 2002	No changes or new errata
August, 2002	No changes or new errata
September 2002	No changes or new errata

Disclaimers

The Intel® SR2050 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® SR2050 2U Server Chassis Technical Product Specification* (Order Number A44374-001). 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 *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.

Refer to the *L440GX+ Technical Product Specification Update* for updates concerning the L440GX+ server board.

Refer to the *STL2 Technical Product Specification Update* for updates concerning the STL2 server board.

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 chassis, boards, components, and firmware covered by this Specification Update.

Product Code #	MM #	TA#	HSC Firmware Rev	Hot Swap SCSI Back plane PBA#	Passive PCI Riser Card PBA#	Power Supply Part Number
KB2HSU	836306	A34690-006	0.06	750615-405	A32819-303	751913-002
KB2HST	836305	A34133-006	0.06	750615-405	A32819-303	751913-002

Summary Tables of Changes

The following tables indicate the errata and the document changes that apply to the Intel® SR2050 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	Some full length ICP Vortex RAID adapters do not fit into the SR2050 chassis
2.	Fixed	The Samsung CD-ROM drive may not initialize properly under SCO UnixWare 7.1.1
3.	Fix	SR2050 chassis fault LED is always lit when the STL2 server board is installed
4.	NoFix	Intrusion switch connector does not fit on connector 6A pins 1&2 in the SR2050 chassis
5.	NoFix	SR2050 chassis HSC firmware update is not possible with the STL2 server board installed
6.	Fixed	RAID card software may show erroneous temperature sensor readings for the STL2/SR2050 system hard disk rive SAF-TE enclosure
7.	Fixed	L440GX+/SR2050, STL2/SR2050/SR2100 interaction issue with ICP Vortex* RAID Controller
8.	No Fix	STL2/SC2050 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

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. Some full length ICP-Vortex RAID adapters do not fit into the SR2050 chassis

Problem Due to the placement of electronic components on the edge of the adapter PCB material, the GDT75x8RN and GDT76x8RN ICP-Vortex RAID adapters do not fit into the SR2050 chassis. These RAID adapters violate the keep out zone described in the PCI 2.2 specification

Implication The Samsung* CD-ROM drive may not be accessible by the UnixWare* 7.1.1 operating system

Workaround None

Status NoFix

2. The Samsung CD-ROM may not initialize properly under SCO UnixWare 7.1.1

Problem If the server board installed in the SR2050 server chassis is continually rebooted, SCO UnixWare 7.1.1 may not be able to properly initialize the slim line Samsung CD-ROM installed in the chassis on a subsequent reboot. The SCO UnixWare 7.1.1 IDE driver causes this issue.

Implication If the server board installed in the SR2050 server chassis is continually rebooted, SCO UnixWare 7.1.1 may not be able to properly initialize the slim line Samsung CD-ROM installed in the chassis on a subsequent reboot. The SCO UnixWare 7.1.1 IDE driver causes this issue.

Workaround Shut down or reboot the server system

Status Fixed. An updated SCO UnixWare IDE driver resolves the problem. It will be included in the Open UNIX 8.0 release. (Formerly UnixWare 7.1.2) which is expected to be released in June 01

3. SR2050 chassis fault LED is always lit when the STL2 server board is installed

Problem The SR2050/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 SR2050 or SR2100 server chassis.

Workaround The STL2 Server boxed board (STL2) includes an alternate front panel cable (Intel part number A37010-001) for use with the SR2050 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

4. Intrusion switch connector does not fit on connector 6A pins 1&2 in the SR2050 chassis

Problem When the STL2 server board is installed in the SR2050 chassis, the backside area for the PCI add in cards is indented 5/16 inches. This indented area is directly over the STL2 connector 6A, where the chassis intrusion connector is located. This indented area does not touch the connector pins, but there is not enough clearance to attach any connectors to this site.

Implication The SR2050 chassis intrusion switch cannot be connected to STL2 connector 6A.

Workaround The SR2050 chassis intrusion switch should be connected to STL2 jumper 1L4 pins 3-4.

Status NoFix

5. Intel® SR2050 chassis HSC firmware update is not possible with the Intel® STL2 Server Board installed

Problem It is not possible to update the SR2050 chassis' HSC firmware with the STL2 server board installed in the chassis. This is because the STL2 server board does not support an I2C interface connection between the server board and the chassis' hot swap back plane / SAF-TE card. The universal version of the SR2050 chassis includes the latest version of HSC firmware available. Any changes to the chassis HSC firmware will be made by incorporated by the ECO process.

Implication It is not possible to update the SR2050 chassis' HSC firmware with the STL2 server board installed.

Workaround It is possible to update the SC5000 or SR2050 chassis' HSC firmware with the L440GX+ server board installed. If a non-universal version of the SR2050 chassis requires an update to the HSC firmware, a L440GX+ board may be installed in the chassis in order to perform the HSC firmware update.

Status NoFix.

6. RAID card software may show erroneous temperature sensor readings for the STL2 / SR2050 system hard disk drive SAF-TE enclosure

Problem RAID card monitoring software may show erroneous temperature sensor readings for the STL2/SR2050 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/SR2050 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

7. L44GX+/SR2050 and STL2/SR2050 Interaction Issue with ICP Vortex* RAID Controller

Problem When using an ICP Vortex RAID controller in a L44GX+/SR2050 or STL2/SR2050/SR2100 system with Hot Swap Controller (HSC) firmware v. 0.05, an error message is encountered when selecting the option to configure the SR2050/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 SR2050/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 L44GX+/SR2050 and STL2/SR2050/SR2100 HSC Firmware version 0.06 and later versions

8. STL2/SC2050 SCSI-3 Adapter LUN SCAN Incompatible with SCSI-2 HSC (0.06)

Problem 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 SC2050 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