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AP450GX MP Server System Specification Update

Release Date: March 1998

Order Number: 282965-10

The AP450GX MP Server System may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are documented in this Specification Update.

CONTENTS

REVISION HISTORY

Date of Revision	Version	Description
January 15, 1997	-001	This document is the first Specification Update for the Intel AP450GX MP Server System.
March 12, 1997	-002	Updated status for Errata 1, 2, 3, 7 and 8. Added Specification Changes 1 and 2. Update tables in the General Information section.
April 16, 1997	-003	Deleted Errata 1 through 8, as they have now been included in the updated Technical Product Specification.
September 10, 1997	-004	Updated General Information section with new chassis frame PBA entries. Added Specification Change 1.
October 15, 1997	-005	Updated General Information section with various new entries. Added Errata 9 and 10.
November 12, 1997	-006	Updated tables in the General Information section. Changed status for Erratum 10. Added Specification Clarification 1. Removed Tracker reference numbers (OEM version only).
December 10, 1997	-007	Updated tables in the General Information section.
January 14, 1998	-008	Updated tables in the General Information section.
February 11, 1998	-009	Updated tables in the General Information section.
March 11, 1998	-010	Updated tables in the General Information section.

PREFACE

This document is an update to the specifications contained in the *AP450GX MP Server System Technical Product Specification* (Order Number 282966). It is intended for hardware system manufacturers and software developers of applications, operating systems, or tools. It will contain Specification Changes, Errata, Specification Clarifications, and Documentation Changes.

This document does not cover errata related to the AP450GX MP Server Board Set. Refer to the *AP450GX MP Server Board Set Specification Update* (Order Number 282963) for specification updates concerning the AP450GX MP Server Board Set.

Nomenclature

Specification Changes are modifications to the current published specifications. 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. Characterized errata may cause the behavior of the AP450GX MP Server System to deviate from published specifications. Hardware and software designed to be used with any given Printed Board Assembly (PBA) and firmware revision level must assume that all errata documented for that PBA and firmware revision level are present.

Specification Update for the AP450GX MP Server System

GENERAL INFORMATION

For a complete revision history of system and board set level components, refer to the most recent Monthly Conversion Summary document for the AP450GX product. Basic AP450GX MP Server System identification information is shown in the table.

System Component Description	Base PBA Number	PBA Revision Number	Fab Rev	Released Firmware Revision	Suggested Firmware Revision	Notes
SCSI Hot Swap Backplane (SCA1 connector)	650536	-103	4.0	650785-005 Rev. 1.05	650785-005 Rev. 1.05	
		-104		686695-001 Rev. 2.10	686695-001 Rev. 2.10	
SCSI Hot Swap Backplane (SCA2 connector)	685137	-001	4.0	686695-001 Rev. 2.10	686695-001 Rev. 2.10	
		-002		697219-001 Rev. 2.11	697219-001 Rev. 2.11	
Front Panel	648616	-006	2.0	648279-006 Rev. 1.02	Not Upgradeable	
		-007		686672-001 Rev 1.07		
		-008		686672-001 Rev 1.07		
Power Distribution Backplane	638540	-404	5.0			
		-502				
Hard Drive LED Board	644025	-002 with QAN# 5531761	1.0			1
		-003	2.0			
		-004				
Chassis Frame	636535	-010				
		-011				
		-012				
		-013				
		-014				
		-015				

System Component Description	Base PBA Number	PBA Revision Number	Fab Rev	Released Firmware Revision	Suggested Firmware Revision	Notes
Front Bezel	636546	-004				
		-005				
		-006				
Power Supply	638179	-008				
		-010				
		-011				

NOTE:

1.   Boards are identified with a white QAN sticker with the number 5531761.

Summary Table of Changes

The following table indicates the Errata, Specification Changes, Specification Clarifications, or Documentation Changes which apply to the AP450GX MP Server System. Intel intends to fix some of the errata in the future, and to account for the other outstanding issues through documentation or specification changes as noted. This table uses the following notations:

CODES USED IN SUMMARY TABLE

Doc:	Document change or update that will be implemented.
Fix:	This erratum is intended to be fixed in a future revision of the hardware or software associated with the AP450GX MP Server System.
Fixed:	This erratum has been previously fixed.
NoFix:	There are no plans to fix this erratum.
Shaded:	This erratum is either new or modified from the previous version of the document.

NO.	PLANS	ERRATA
1	Fixed	Removal of wide SCSI cable may cause strain relief to break
2	Fixed	Edge of fan access cutout may cause damage to the fan wires
3	Fixed	Powering off system causes incorrect signal timing
4	NoFix	Power failure conditions may cause incorrect LED indications
5	Fix	SAF-TE Perform Slot Operation cannot clear Identify Flag bit
6	Fix	SAF-TE Inquiry Command receives incorrect Enclosure Unique Identification field
7	Fixed	Power supply may exceed ripple limits under certain loads
8	Fixed	Power supply may exceed voltage limits under certain loads
9	Fixed	Surface traces on the power distribution backplane may short to power supply connector
10	NoFix	Verify fails when the SCSI BIOS does not register a CTRL-A that is pressed before the drives spin up
NO.	**PLANS**	**SPECIFICATION CHANGES**
1	Doc	Specifications related to environmental certifications
NO.	**PLANS**	**SPECIFICATION CLARIFICATIONS**
1	Doc	Clarification of section on power supply control using the RTC (real-time clock)

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The following table indicates the hardware or software revisions where each erratum was fixed when applicable.

CODES USED IN FOLLOWING TABLE

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NO.	PLANS	SCSI Hot Swap Backplane	Front Panel	Power Distribution Backplane	Hard Drive LED Board	Chassis Frame	Front Bezel	Power Supply	Other
					FIXED IN				
1	Fixed								New SCSI Cable PBA# 641231-002
2	Fixed					-012			
3	Fixed							-011	
4	NoFix								
5	Fix								
6	Fix								
7	Fixed							-011	
8	Fixed							-011	
9	Fixed			-501					
10	NoFix								

ERRATA

For Errata 1 through 8, refer to the *AP450GX MP Server System Technical Product Specification* (Intel Order Number 282966-002).

9.   Surface Traces on the Power Distribution Backplane May Short to the Power Supply Connector

PROBLEM: Surface traces on the power distribution back plane are routed under the power supply mating connectors. Under certain conditions these surface traces may short to the power supply mating connectors.

IMPLICATION: Conditions where this might happen are excessive system shock and vibration which would cause the connector to wear through to the surface traces. This condition is believed to only be an issue with certain connectors.

WORKAROUND: This issue is fixed in the new Fab 6 (638540-501) power distribution. An additional keepout area was added to account for the metal enclosure of the d-sub connector housing.

STATUS: Fixed in rev -501 of the power distribution board.

10.   Verify Fails When the SCSI BIOS Does Not Register a CTRL-A That is Pressed Before the Drives Spin Up

PROBLEM: When initiating Adaptec's* setup utility with <CTRL-A> the user has to wait for the drives to spin up and then press <CTRL-A>.

IMPLICATION: Drives that have not been scanned yet when <CTRL-A> is pressed will not be registered in the SCSI BIOS.

WORKAROUND: This problem does not affect system operation.

STATUS: There are no plans to update the SCSI BIOS; this issue will not be fixed.

SPECIFICATION CHANGES

The specification changes listed in this section apply to *the AP450GX MP Server System Technical Product Specification* (Order Number 282966). All specification changes will be incorporated into a future release of the *AP450GX MP Server System Technical Product Specification*.

1.   Specifications Related to Environmental Certifications

The following changes were made to various subsections within Section 10., "Environmental Certifications."

In Section 10.1.1., "USA," the existing text was deleted, and the following text was moved from Section 10.1., "Safety," to Section 10.1.1. Section 10.1.1. was changed to read as follows:

The system is UL listed to UL 1950, 3rd Edition.

Section 10.1.2., "Canada," was changed to read as follows:

The system is certified by UL(cUL) to meet the requirements of CSA C22.2 No. 950-M95. The product bears the cUL mark.

In Section 10.1.3., "Europe," a second sentence was added to read as follows:

This systems complies with the EU CE mark directives 73/23/EEC and 93/68/EEC.

Section 10.1.4., "International," was changed to read as follows:

The system is certified to meet the requirements of IEC 950 with amendments and EN 60 950 with amendments and Nordic deviations by NEMKO.

In Section 10.2.3., "Europe," the first part of the third sentence was changed to read as follows:

The system is tested to the following immunity requirements and maintains normal performance within these specification limits:

SPECIFICATION CLARIFICATIONS

The specification clarifications listed in this section apply to *the AP450GX MP Server System Technical Product Specification* (Order Number 282966). All specification clarifications will be incorporated into a future release of the *AP450GX MP Server System Technical Product Specification*.

1. *Power Supply Control Using the RTC (Real-Time Clock)*

Section 8.2.1.2., "Real-Time Clock Power Control," will be modified. The last paragraph will be changed to read as follows:

Power control from the RTC is typically used during Automatic Server Recovery (ASR) by setting an alarm in the RTC prior to power-off. It can also be used by BIOS or a utility program to power the system on or off at a predetermined time set in the RTC. However, the feature has never been implemented in either the BIOS or any utility program. Furthermore, LDSM (LANDesk® Server Manager) does not utilize the ASR.

The last two sentences in the paragraph are additions.