



FJ440ZX Motherboard Specification Update

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Order Number: 738238-007

The FJ440ZX motherboard 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.

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The FJ440ZX motherboard may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

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REVISION HISTORY

Date of Revision	Version	Description
March, 1999	-001	This document is the first Specification Update for the Intel® FJ440ZX motherboard.
April, 1999	-002	Added Erratum 1.
June, 1999	-003	Added Specification Change 1.
August, 1999	-004	Added Documentation Change 1.
September, 1999	-005	Added Specification Change 2.
October, 1999	-006	Added Erratum 2.
November, 1999	-007	Updated status of Erratum 2.

PREFACE

This document is an update to the specifications contained in the FJ440ZX Motherboard Technical Product Specification (Order number 726090). 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.

Refer to the *Intel® Celeron™ Processor Specification Update* (Order number 243748) for specification updates concerning the Celeron processor. Items contained in the *Intel Celeron Processor Specification Update* that either do not apply to the FJ440ZX motherboard 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 PBA revision(s) associated with that stepping.

Refer to the *82443ZX Specification Update* (Order Number 290652) for specification updates concerning the 82443ZX PCI A.G.P. Controller. Items contained in the *82443ZX Specification Update* that either do not apply to the FJ440ZX motherboard or have been worked around are noted in this document. Otherwise, it should be assumed that any controller errata for a given stepping are applicable to the PBA revision(s) associated with that stepping.

Refer to the *Intel® 82371EB (PIIX4E) Specification Update* (Order Number 290635) for specification updates concerning the 82371EB PIIX4E. Items contained in the *Intel 82371EB (PIIX4E) Specification Update* that either do not apply to the FJ440ZX motherboard or have been worked around are noted in this document. Otherwise, it should be assumed that any PIIX4E errata for a given stepping are applicable to the Printed Board Assembly (PBA) revision(s) associated with that stepping.

Nomenclature

Specification Changes are modifications to 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 FJ440ZX motherboard's behavior to deviate from published specifications. Hardware and software designed to be used with any given Printed Board Assembly (PBA) and BIOS revision level must assume that all errata documented for that PBA and BIOS revision level are present on all motherboards.

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.

**Specification Update for
FJ440ZX Motherboards**

GENERAL INFORMATION

Basic FJ440ZX Motherboard Identification Information

AA Revision	PBA Revision	440ZX AGPSet Stepping	BIOS Revision	Notes
727315-202	727313-202	A1	4F4JZ0XA.86A.0004.P03	1-5
727315-203	727313-203	A1	4F4JZ0XA.86A.0006.P05	1-5
727315-204	727313-204	A1	4F4JZ0XA.86A.0006.P05	1-5

NOTES:

1. The PBA number or AA number is found on a small label on the component side of the board.
2. The 440ZX AGPset kit used on this PBA revision consists of two components as follows:

Device	Stepping	S-Spec Numbers
82443ZX	A1	SL37A
82371EB	A0	SL37M SL37Z

3. The following errata are contained in the *Intel® Celeron™ Processor Specification Update* (Order Number 243748) for the Celeron processor and either do not apply to the FJ440ZX motherboard or have been worked-around in this PBA and/or BIOS revision: C1AP-C2AP. All other errata associated with the processor apply to this PBA revision.
4. The following items are contained in the *Intel® 82443ZX Specification Update* (Order Number 290652) and either do not apply to the FJ440ZX motherboard or have been worked around in this PBA and/or BIOS revision: None. All other errata associated with the AGPset apply to this PBA revision.
5. The following items are contained in the *Intel® 82371EB (PIIX4E) Specification Update* (Order Number 290635) and either do not apply to the FJ440ZX motherboard or have been worked around in this PBA and/or BIOS revision: 5, 9, 15. All other errata associated with the PIIX4E apply to this PBA revision.

Summary Table of Changes

The following table indicates the Specification Changes, Errata, Specification Clarifications, or Documentation Changes which apply to the FJ440ZX motherboard. Intel intends to fix some of the errata in a future revision of the motherboard, 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 motherboard or BIOS.
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	SPECIFICATION CHANGES
1	Doc	Support for 433 and 466 MHz Intel® Celeron™ processors
2	Doc	Support for 500 MHz Celeron processors
NO.	PLANS	ERRATA
1	NoFix	BIOS Setup program does not warn of IRQ conflict
2	NoFix	Support for second COM port not available
NO.	PLANS	DOCUMENTATION CHANGES
1	Doc	Change to description of wake-up devices

The errata described in this specification update apply to combinations of PBA revision and BIOS revision as shown in the table below. Descriptions of the individual errata referred to by number in the table below are found in the ERRATA section of this document.

PBA Revision	BIOS Revision	Errata That Apply
727313-202	4F4JZ0XA.86A.0004.P03	1-2
	4F4JZ0XA.86A.0005.P04	1-2
	4F4JZ0XA.86A.0006.P05	1-2
727313-203	4F4JZ0XA.86A.0004.P03 [‡]	1-2
	4F4JZ0XA.86A.0005.P04 [‡]	1-2
	4F4JZ0XA.86A.0006.P05	1-2
727313-204	4F4JZ0XA.86A.0004.P03 [‡]	1-2
	4F4JZ0XA.86A.0005.P04 [‡]	1-2
	4F4JZ0XA.86A.0006.P05	1-2

[‡] Note: This combination of BIOS revision and PBA revision has not undergone regression testing. Use of a PBA with down-revision BIOS is an untested combination and is undertaken at the user's risk.

SPECIFICATION CHANGES

The Specification Changes listed in this section apply to the *FJ440ZX Motherboard Technical Product Specification* (Order Number 726090). All Specification Changes will be incorporated into a future version of that specification.

1. **Support for 433 and 466 MHz Intel® Celeron™ Processors**

The motherboard supports 433 and 466 MHz Celeron processors.

In Section 1.2, Processor, Table 1 will have the following entries added:

Processor Speed	Host Bus Frequency	Cache Size
433 MHz	66 MHz	128 KB
466 MHz	66 MHz	128 KB

The last sentence of the first paragraph of Section 1.2 will be replaced in its entirety as follows:

All supported onboard memory can be cached, up to the cachability limit of the processor.

2. **Support for 500 MHz Celeron Processors**

The following will be added to Table 1, Processor Speeds Supported by the Motherboard, in Section 1.2, Processor:

Processor Speed	Host Bus Frequency	Cache Size
500 MHz	66 MHz	128 KB

Note: BIOS Revision 4F4JZ0XA.86A.0006.P05 or greater is required to properly support 500 MHz processors.

ERRATA

1. *BIOS Setup Program Does Not Warn of IRQ Conflict*

PROBLEM: The BIOS Setup program does not display an asterisk in the Peripheral Configuration submenu to warn that the IRQ chosen for the serial port is in use by another device.

IMPLICATION: The user may assign two devices to use the same IRQ resource.

WORKAROUND: None.

STATUS: This erratum will not be fixed.

2. *Support for Second COM Port not Available*

PROBLEM: The option to configure a second COM port is available in BIOS Setup. However, there is no hardware support for a second COM port on the board.

IMPLICATION: Only one COM port is available for the user. A second COM port is not available for use.

WORKAROUND: None.

STATUS: This erratum will not be fixed.

DOCUMENTATION CHANGES

The Documentation Changes listed in this section apply to the *FJ440ZX Motherboard Technical Product Specification* (Order Number 726090). All Documentation Changes will be incorporated into a future version of that specification.

1. *Change to Description of Wake-Up Devices*

In Section 3.5.2.2, Wake-up Devices and Events, the text paragraph should read "Table 50 describes which devices or specific events can wake the computer from specific ACPI states."

