



NV430VX Motherboard Specification Update

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Order Number: 281827-003

The NV430VX Motherboard may contain design defects or errors known as errata. Characterized errata that may cause the NV430VX Motherboard's behavior to deviate from published specifications are documented in this specification update.

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The NV430VX may contain design defects or errors known as errata. Current characterized errata are available on request.

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REVISION HISTORY

Date of Revision	Version	Description
September 1996	-001	This document is the first Specification Update for the Intel NV430VX motherboard.
November 1996	-002	Added Erratum 2.
December 1996	-003	Added Errata 3-4.

PREFACE

This document is an update to the specifications contained in the *NV430VX Motherboard Technical Product Specification* (Order Number 281839). 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 *Pentium[®] Processor Specification Update* (Order Number 242480) for specification updates concerning the Pentium[®] processor. Items contained in the *Pentium[®] Processor Specification Update* that either do not apply to the NV430VX 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 Printed Board Assembly (PBA) revision(s) associated with that stepping.

Refer to the *82430VX PCIsset Specification Update* (Order Number 297653) for specification updates concerning the 82430VX PCIsset. Items contained in the *82430VX PCIsset Specification Update* that either do not apply to the NV430VX motherboard or have been worked around are noted in this document. Otherwise, it should be assumed that any PCIsset errata for a given stepping are applicable to the Printed Board Assembly (PBA) revision(s) associated with that stepping.

Refer to the *82371SB PIIX3 Specification Update* (Order Number 297658) for specification updates concerning the 82371SB PIIX3. Items contained in the *82371SB PIIX3 Specification Update* that either do not apply to the NV430VX motherboard or have been worked around are noted in this document. Otherwise, it should be assumed that any PCIsset 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 NV430VX 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 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 NV430VX Motherboards

GENERAL INFORMATION

Basic NV430VX Motherboard Identification Information

PBA Revision	82430VX PCIset Stepping	Fab Revision	BIOS Revision	Notes
655539-400	A1	D	1.00.02.DN0	1, 2, 3, 4, 5

NOTES:

- The PBA number is found on a small label on the component side of the board.
- The 82430VX PCIset kit used on this PBA revision consists of three different components as follows:

Device	Stepping	S-Spec Numbers
82437VX	A1	SU085
82438VX	A1	SU086
82371SB	B0	SU093

- The following errata contained in the *82430VX PCIset Specification Update* (Order Number 297653) either do not apply to the NV430VX motherboard or have been worked around in this PBA and/or BIOS revision; 1-11. All other errata associated with the PCIset apply to this PBA revision. For specific details of any erratum please refer to the *82430VX PCIset Specification Update*.
- The following errata contained in the *82371SB PIIIX3 Specification Update* (Order Number 297658) either do not apply to the NV430VX motherboard or have been worked around in this PBA and/or BIOS revision: 1-9, 13. All other errata associated with the PCIset apply to this PBA revision. For specific details of any erratum please refer to the *82371SB PIIIX3 Specification Update*.
- The following errata contained in Part II of the *Pentium[®] Processor Specification Update* (Order Number 242480) either do not apply to the NV430VX motherboard or have been worked around in this PBA and/or BIOS revision: 5, 7, 9-11, 13-14, 16-17, 29, 31, 34, 36-37, 39, 40, 46, 48-50, 58, 60-64, 66-67, 69, 71, all DP errata, all AP errata, all TCP errata. All other errata in Part II may apply to this revision level of the motherboard, depending on the stepping of the processor or the specific software that is being executed. Also, some of these errata apply only to motherboards being used in an application development environment. For specific details of any erratum please refer to the *Pentium[®] Processor Specification Update*.



Summary Table of Changes

The following table indicates the Specification Changes, Errata, Specification Clarifications, or Documentation Changes which apply to the NV430VX 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	ERRATA
1	Fix	PCI Delayed Transactions are not supported
2	Fix	BIOS does not support no-emulation mode for CD-ROM boot
3	Fix	CMOS checksum may be lost if power is cycled during boot
4	NoFix	PCI device scan may terminate abnormally

ERRATA

1. *PCI Delayed Transactions Are Not Supported*

PROBLEM: An erratum to the A1 stepping of the 82371SB PCI ISA IDE Xcelerator (PIIX3) requires that the option for Delayed Transactions be turned off by the BIOS.

IMPLICATION: System level performance and compatibility are not affected by turning off delayed transactions. The system will be PCI 2.1 compatible and will support all PCI 2.1 compliant cards.

WORKAROUND: None.

STATUS: This erratum will be fixed in a future PBA revision.

2. *BIOS Does Not Support No-Emulation Mode for CD-ROM Boot*

PROBLEM: The system BIOS does not support booting from an “EI Torito” bootable CD-ROM using the no-emulation mode format.

IMPLICATION: Booting from a CD-ROM using no emulation mode is not supported. For example, Microsoft Windows NT* version 4.0 uses no-emulation mode for its boot CD-ROM.

WORKAROUND: Boot the computer from a floppy or hard disk, then install or run the program from the CD-ROM.

STATUS: This erratum will be fixed in a future BIOS revision.

3. *CMOS Checksum May Be Lost If Power Is Cycled During Boot*

PROBLEM: If the computer power is turned off during a short portion of the boot process, the CMOS checksum byte will not be updated. The next time the computer is turned on, the message “CMOS Checksum Invalid” will be displayed.

IMPLICATION: When the message is displayed, the correct checksum has already been recalculated and stored. No user action is required to recover from the error. If the additional message:

Date and Time Not Set
Press <F1> for Setup, <Esc> to Boot

is displayed, the user will have to reset the current date and time using the BIOS Setup program.

WORKAROUND: None.

STATUS: This erratum will be fixed in a future BIOS revision.

4. *PCI Device Scan May Terminate Abnormally*

PROBLEM: If the system does not contain a device with PCI ID Bus 00, Device 07, Function 3, any program that polls for PCI devices will receive a partial response at that address. If the program is not able to recover from that partial response it may cause the computer to lock up.

IMPLICATION: The user may have to reboot the computer after running a PCI diagnostic program. This is only known to affect the proprietary PCI diagnostic program PCI.EXE. Intel does not know of any application program subject to this erratum.

WORKAROUND: None

STATUS: This erratum will not be fixed.