



# **Intel® Desktop Board D815EEA2/D815EPEA2 Specification Update**

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The desktop board D815EEA2/D815EPEA2 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 Intel® D815EEA2/D815EPEA2 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.

Contact your local Intel sales office or your distributor to obtain the latest specifications before placing your product order.

Copies of documents which have an ordering number and are referenced in this document, or other Intel literature, may be obtained from:

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## REVISION HISTORY

| Date of Revision | Version | Description   |
|------------------|---------|---|
| March 2001       | -001    | This document is the first Specification Update for the Intel® Desktop Board D815EEA2/D815EPEA2.                              |
| May 2001         | -002    | Added Erratum 1.  |
| May 2001         | -003    | Added Erratum 2. Revision –002 of the Technical Product Specification has been published. Please discard the earlier version. |

## PREFACE

This document is an update to the specifications contained in the *Desktop Board D815EEA2/D815EPEA2 Technical Product Specification* (Order number A46399). 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® III Processor Specification Update* (Order number 244453) for specification updates concerning the Pentium III processor. Items contained in the *Pentium III Processor Specification Update* that either do not apply to the desktop board D815EEA2/D815EPEA2 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 *Intel® Celeron™ Processor Specification Update* (Order number 243748) for specification updates concerning the Intel Celeron processor. Items contained in the *Intel Celeron Processor Specification Update* that either do not apply to the desktop board D815EEA2/D815EPEA2 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 *Intel® 82815 Chipset: 82815 Graphics and Memory Controller Hub (GMCH) Specification Update* (Order Number 290659) for specification updates concerning the 82815 GMCH Controller. Items contained in the *82815 GMCH Specification Update* that either do not apply to the desktop board D815EEA2/D815EPEA2 or have been worked around are noted in this document. Otherwise, it should be assumed that any GMCH errata for a given stepping are applicable to the PBA revision(s) associated with that stepping.

Refer to the *Intel® 82801 I/O Controller Hub (ICH) Specification Update* (Order Number 290677) for specification updates concerning the 82801 I/O Controller Hub. Items contained in the *Intel 82801 ICH Specification Update* that either do not apply to the desktop board D815EEA2/D815EPEA2 or have been worked around are noted in this document. Otherwise, it should be assumed that any ICH 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 desktop board D815EEA2/D815EPEA2 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 desktop boards.

**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  
Desktop Board D815EEA2/D815EPEA2**



## GENERAL INFORMATION

Basic Desktop Board D815EEA2/D815EPEA2 Identification Information

| AA Revision | PBA Revision | BIOS Revision         | Notes |
|-------------|--------------|-----------------------|-------|
| A45154-204  | A45155-204   | EA81520A.86A.0006.P03 | 1-6   |
| A45154-205  | A45155-205   | EA81520A.86A.0007.P04 | 1-6   |
| A45154-206  | A45155-206   | EA81520A.86A.0007.P04 | 1-6   |
| A45154-207  | A45155-207   | EA81520A.86A.0015.P10 | 1-6   |
| A45156-204  | A45157-204   | EA81520A.86A.0006.P03 | 1-6   |
| A45156-205  | A45157-205   | EA81520A.86A.0006.P03 | 1-6   |
| A45156-206  | A45157-206   | EA81520A.86A.0015.P10 | 1-6   |
| A46429-203  | A46430-203   | EA81520A.86A.0006.P03 | 1-6   |
| A54453-205  | A54454-205   | EA81520A.86A.0007.P04 | 1-6   |
| A54453-206  | A54454-206   | EA81520A.86A.0007.P04 | 1-6   |
| A54453-207  | A54454-207   | EA81520A.86A.0015.P10 | 1-6   |

NOTES:

- The PBA number or AA number is found on a small label on the component side of the board.
- The 82815 Chipset kit used on this PBA revision consists of three components as follows:

| Device            | Stepping | S-Spec Numbers |
|-------------------|----------|----------------|
| 82815 GMCH        | A2       | SL4DF          |
| 82815EP MCH       | A2       | SL552          |
| 82801BA ICH       | B1       | SL4HM          |
| SST 49L004A33 FWH | NA       | NA             |

- The following errata are contained in the *Pentium® III Processor Specification Update* (Order Number 244453) for the Pentium III processor and either do not apply to the Desktop Board D815EEA2/D815EPEA2 or have been worked-around in this PBA and/or BIOS revision: 1. All other errata associated with the processor apply to this PBA revision.
- 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 Desktop Board D815EEA2/D815EPEA2 or have been worked-around in this PBA and/or BIOS revision: None. All other errata associated with the processor apply to this PBA revision.
- The following items are contained in the *Intel® 82815 Graphics and Memory Controller Hub (GMCH) Specification Update* (Order Number 290659) and either do not apply to the Desktop Board D815EEA2/D815EPEA2 or have been worked around in this PBA and/or BIOS revision: None. All other errata associated with the GMCH apply to this PBA revision.
- The following items are contained in the *Intel® 82801 I/O Controller Hub Specification Update* (Order Number 290677) and either do not apply to the Desktop Board D815EEA2/D815EPEA2 or have been worked around in this PBA and/or BIOS revision: None. All other errata associated with the ICH 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 desktop board D815EEA2/D815EPEA2. Intel intends to fix some of the errata in a future revision of the desktop board, 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 desktop board 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   | Fixed | Intel® Pentium® III processor Erratum E76  |
| 2   | Fix   | System BIOS will not properly configure multi-channel audio Communications Network Riser (CNR) cards |

## ERRATA

### 1. *Intel® Pentium® III Processor Erratum E76*

**PROBLEM:** For a complete description of the Pentium® III processor erratum E76, see the Pentium III Specification Update, order number 244453 found at <http://developer.intel.com/design/PentiumIII/specupdt/>.

**IMPLICATION:** For a complete description of the Pentium III processor erratum E76, see the Pentium III Specification Update, order number 244453 found at <http://developer.intel.com/design/PentiumIII/specupdt/>.

**WORKAROUND:** Update the D815EEA2/D815EPEA2 desktop board with BIOS revision EA81520A.86A.0014.P09.

**STATUS:** This erratum was addressed in BIOS revision EA81520A.86A.0014.P09.

### 2. *System BIOS Will Not Properly Configure Multi-Channel Audio Communications Network Riser (CNR) Cards*

**PROBLEM:** During the system boot process, the system BIOS compares the multi-channel signature stored in BIOS with the multi-channel signature stored in the audio CNR EEPROM. If the signatures match, the system BIOS then programs the device ID in the PCI configuration space with the multi-channel model ID from the CNR EEPROM. The system BIOS for this desktop board incorrectly programs the device ID in the PCI configuration space. When the audio driver that supports multi-channel functionality is installed, the driver may not install correctly or may not install at all.

**IMPLICATION:** Users who install a multi-channel audio CNR card may experience difficulty installing the manufacturers audio drivers.

**WORKAROUND:** None.

**STATUS:** This erratum is intended to be fixed in a future BIOS revision.

