



# **Intel® Desktop Board D845EPT2 Specification Update**

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The Intel® Desktop Board D845EPT2 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® desktop board D845EPT2 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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# CONTENTS

|   |    |
|---|----|
| REVISION HISTORY .....  | v  |
| PREFACE .....   | vi |
| <b>Specification Update for the Intel® Desktop Board D845EPT2</b> |    |
| GENERAL INFORMATION .....   | 3  |
| ERRATA.....   | 5  |
| DOCUMENTATION CHANGES .....                                       | 6  |





## REVISION HISTORY

| Date of Revision | Version | Description   |
|------------------|---------|---|
| June 2002        | -001    | This document is the first Specification Update for the Intel® Desktop Board D845EPT2.  |
| September 2002   | -002    | Added Erratum1. Removed Printed Board Assembly (PBA) information from the document, as this reference is no longer valid. Updated the Legal Disclaimer Section. |
| October 2002     | -003    | Added Erratum 2.  |
| February 2003    | -004    | Added Erratum 3. Added Documentation Change 1.  |

## PREFACE

This document is an update to the specifications contained in the *Intel® Desktop Board D845EPT2 Technical Product Specification* (Order number A84913). 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® Pentium® 4 Processor Specification Update* (Order number 249199) for specification updates concerning the Intel Pentium 4 processor and that may apply to the desktop board D845EPT2. Unless otherwise noted in this document, it should be assumed that any processor errata for a given stepping are applicable to the Altered Assembly (AA) revision(s) associated with that stepping.

Refer to the *Intel® 845 Chipset: 82845 Memory Controller Hub E (MCH) for DDR Specification Update (Order Number 298603)* for specification updates concerning the 82845E MCH Controller and that may apply to the desktop board D845EPT2. Unless otherwise noted in this document, it should be assumed that any MCH errata for a given stepping are applicable to the Altered Assembly (AA) revision(s) associated with that stepping.

Refer to the *Intel® 82801DB I/O Controller Hub 4 (ICH4) Specification Update* (Order Number 290745) for specification updates concerning the 82801DB I/O Controller Hub and that may apply to the desktop board D845EPT2. Unless otherwise noted in this document, it should be assumed that any ICH 4 errata for a given stepping are applicable to the Altered Assembly (AA) 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 D845EPT2's behavior to deviate from published specifications. Hardware and software designed to be used with any given Altered Assembly (AA) and BIOS revision level must assume that all errata documented for that AA 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 the  
Intel® Desktop Board D845EPT2**





## GENERAL INFORMATION

**Basic Desktop Board D845EPT2 Identification Information**

| AA Revision | BIOS Revision         | Notes |
|-------------|-----------------------|-------|
| A82680-304  | PT84520A.86A.0006.P02 | 1-5   |
| A82680-305  | PT84520A.86A.0009.P04 | 1-5   |
| A82680-306  | PT84520A.86A.0011.P06 | 1-5   |
| A83390-304  | PT84520A.86A.0005.P01 | 1-5   |
| A83390-305  | PT84520A.86A.0006.P02 | 1-5   |
| A83390-306  | PT84520A.86A.0009.P04 | 1-5   |
| A83390-307  | PT84520A.86A.0011.P06 | 1-5   |
| A83392-304  | PT84520A.86A.0006.P02 | 1-5   |
| A83392-305  | PT84520A.86A.0009.P04 | 1-5   |
| A83392-306  | PT84520A.86A.0011.P06 | 1-5   |

**NOTES:**

- The AA number is found on a small label on the component side of the board.
- The 82845E Chipset kit used on this AA revision consists of three components as follows:

| Device              | Stepping | S-Spec Numbers |
|---------------------|----------|----------------|
| 82845E MCH          | E0       | SL66N          |
| 82801BA ICH         | A1       | SL66K          |
| N82802AB8 4Mbit FWH | A0<br>A1 | SB48           |

- Refer to the *Intel® Pentium® 4 Processor Specification Update* (Order Number 249199) for errata related to the Pentium 4 processor and that may apply to the desktop board D845EPT2.
- Refer to the *Intel® 845 Chipset: 82845 Memory Controller Hub E (MCH) for DDR Specification Update* (Order Number 298603) for errata related to the 82845 MCH that may apply to the desktop board D845EPT2.
- Refer to the *Intel® 82801DB I/O Controller Hub 4 (ICH4) Specification Update* (Order Number 290745) for errata related to the 82801DB I/O Controller Hub that may apply to the desktop board D845EPT2.

## Summary Table of Changes

The following table indicates the Specification Changes, Errata, Specification Clarifications, or Documentation Changes that apply to the desktop board D845EPT2. 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.  |
| PlanFix: | This erratum is intended to be fixed in a future revision of the desktop board, driver, 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® 82801DB I/O Controller Hub 4 (ICH 4) erratum 7                     |
| 2   | PlanFix | Wake From an ACPI Sleep State Using Wake Methodologies May Fail           |
| 3   | PlanFix | Intel 82801DB I/O Controller Hub 4 (ICH 4) Erratum 8                      |
| NO. | PLANS   | DOCUMENTATION CHANGES   |
| 1   | Doc     | Change to description of Table 40, Section 2.8.3, External I/O Connectors |

## ERRATA

### 1. *Intel® 82801DB I/O Controller Hub 4 (ICH 4) Erratum 7*

**PROBLEM:** For a complete description of the ICH 4 erratum 7, see the Intel® 82801DB I/O Controller Hub 4 (ICH 4) Specification Update, order number 290745 found at <http://developer.intel.com/design/chipsets/specupdt>.

**IMPLICATION:** For a complete description of the ICH 4 erratum 7, see the Intel 82801DB I/O Controller Hub 4 (ICH 4) Specification Update, order number 290745 found at <http://developer.intel.com/design/chipsets/specupdt>.

**WORKAROUND:** None.

**STATUS:** This erratum was fixed in the B0 chipset stepping.

### 2. *Wake From an ACPI Sleep State Using Wake Methodologies May Fail*

**PROBLEM:** The desktop board hardware leaves the LAN RESET (LAN\_RST#) signal unasserted before and after the resume well power (VccSus3\_3 and VccSus1\_5) is valid, instead of asserting it for 10 ms after valid power, which is required by the Intel 82801DB I/O Controller Hub 4 (ICH4) Datasheet (order number 290744). The result is that LAN wake attempts may fail.

**NOTE:** Wake from LAN\* using the MagicPacket\* utility will not be affected by this errata.

**IMPLICATION:** Users that take advantage of LAN wake methods to wake systems from an ACPI sleep state may experience some wake failures.

**WORKAROUND:** None.

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

### 3. *Intel 82801DB I/O Controller Hub 4 (ICH 4) Erratum 8*

**PROBLEM:** For a complete description of the ICH 4 erratum 8, see the Intel 82801DB I/O Controller Hub 4 (ICH 4) Specification Update, order number 290745 found at <http://developer.intel.com/design/chipsets/specupdt>.

**IMPLICATION:** For a complete description of the ICH 4 erratum 8, see the Intel 82801DB I/O Controller Hub 4 (ICH 4) Specification Update, order number 290745 found at <http://developer.intel.com/design/chipsets/specupdt>.

**WORKAROUND:** None.

**STATUS:** This erratum may be fixed in a future chipset stepping

## DOCUMENTATION CHANGES

The Documentation Changes listed in this section apply to the *Desktop Board D845EPT2 Technical Product Specification* (Order Number A84913). All Documentation Changes will be incorporated into a future version of that specification.

### 1. **Change to Description of Table 40, Section 2.8.3, External I/O Connectors**

Table 40, Section 2.8.3, External I/O Connectors will change in its entirety as follows:

**Table 1. Front Panel Audio Connector**

| Pin | Signal Name   | Pin | Signal Name      |
|-----|---------------|-----|------------------|
| 1   | MIC_IN_FP     | 2   | Ground           |
| 3   | MIC_BIAS      | 4   | V_5P0_AUD_ANALOG |
| 5   | R_FNTOUT      | 6   | R_RETIN          |
| 7   | Not Connected | 8   | Key              |
| 9   | L_FNT_OUT     | 10  | L_RETIN          |