



# Intel<sup>®</sup> Desktop Board D946GZAB Specification Update

Release Date: November 2007

Order Number: D65909-002US

The Intel<sup>®</sup> Desktop Board D946GZAB 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.

# Revision History

---

Revision	Revision History	Date
-001	This document is the first Specification Update for the Intel® Desktop Board D946GZAB	October 5, 2006
-002	Updated the General Information table	November 2007

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL® PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN INTEL'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, INTEL ASSUMES NO LIABILITY WHATSOEVER, AND INTEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF INTEL PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. INTEL PRODUCTS ARE NOT INTENDED FOR USE IN MEDICAL, LIFE SAVING, LIFE SUSTAINING APPLICATIONS.

Intel may make changes to specifications and product descriptions at any time, without notice.

Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Intel reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them.

The Intel® Desktop Board D946GZAB 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:

Intel Corporation  
P.O. Box 5937  
Denver, CO 80217-9808

or call in North America 1-800-548-4725, Europe 44-0-1793-431-155, France 44-0-1793-421-777, Germany 44-0-1793-421-333, other Countries 708-296-9333

Intel, the Intel logo, Intel Core, and Pentium are trademarks of Intel Corporation in the United States and other countries.

\* Other names and brands may be claimed as the property of others.

Copyright © 2007 Intel Corporation.

# Contents

---

## **Specification Update for the Intel® Desktop Board D946GZAB**

Terminology .....	5
General Information .....	5
Summary of Changes .....	6

# Specification Update for the Intel<sup>®</sup> Desktop Board D946GZAB

---

This document is an update to the specifications contained in the *Intel<sup>®</sup> Desktop Board D946GZAB Technical Product Specification* (Order Number D56027). 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.

For specification updates concerning the Intel processor that may apply to this desktop board, refer to the following:

- *Intel<sup>®</sup> Core™2 Extreme Processor X6800Δ and Intel<sup>®</sup> Core™2 Duo Desktop Processor E6000Δ Sequence Specification Update* (Order Number 313279)
- *Intel<sup>®</sup> Pentium<sup>®</sup> 4 Processor 6x1Δ Sequence Specification Update* (Order Number 310309)
- *Intel<sup>®</sup> Pentium<sup>®</sup> 4 Processor on 90 nm Process Specification Update* (Order Number 302352)
- *Intel<sup>®</sup> Pentium<sup>®</sup> 4 Processor Specification Update* (Order Number 249199)

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<sup>®</sup> 946 Express Chipset Family Specification Update* (Order Number 313084) for specification updates concerning the 82946GZ GMCH Controller and that may apply to the desktop board D946GZAB. 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<sup>®</sup> IO Controller Hub7 (ICH7) Family Specification Update* (Order Number 307014) for specification updates concerning the 82801GB I/O Controller Hub and that may apply to the desktop board D946GZAB. Unless otherwise noted in this document, it should be assumed that any ICH7 errata for a given stepping are applicable to the Altered Assembly (AA) revision(s) associated with that stepping.

# Terminology

**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 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.

# General Information

## Basic Desktop Board D946GZAB Identification Information

AA Revision	BIOS Revision	Notes
D53993-304	AB94610J.86A.0169	1, 2
D53993-303	AB94610J.86A.0140	1, 2
D53993-302	AB94610J.86A.0140	1, 2
D53993-301	AB94610J.86A.0125	1, 2
D66610-303	AB94610J.86A.0169	1, 2
D66610-302	AB94610J.86A.0140	1, 2
D66610-301	AB94610J.86A.0140	1, 2
D66610-300	AB94610J.86A.0125	1, 2

NOTES:

1. The AA number is found on a small label on the component side of the board.
2. The 946 Chipset kit used on this AA revision consists of two components as follows:

Device	Stepping	S-Spec Numbers
82946GZ	C2	SL9R4
82801GB	A1	SL8FX

## Summary of Changes

The following table indicates the Specification Changes, Errata, Specification Clarifications, or Documentation Changes that apply to the Intel® Desktop Board D946GZAB. 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.

The following notations are used in the table:

Doc:	Document change or update that will be implemented.
Plan Fix:	This erratum may be fixed in a future revision of the desktop board, driver, or BIOS.
Fixed:	This erratum has been previously fixed.
No Fix:	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
		There are no characterized erratum for this product