



# Intel<sup>®</sup> Desktop Board D945GCCR Specification Update

January 2008

Order Number: D87098-003

The Intel<sup>®</sup> Desktop Board D945GCCR 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

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Revision	Revision History	Date
-001	This document is the first Specification Update for the Intel® Desktop Board D945GCCR.	January 2007
-002	Added Specification Change 1.	July 2007
-003	Update to General Information Section	January 2008

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The Intel® Desktop Board D945GCCR 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

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# Contents

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## Specification Update for the Intel® Desktop Board D945GCCR

- General Information ..... 5
- Summary of Changes ..... 6
- Specification Changes ..... 6

# Specification Update for the Intel<sup>®</sup> Desktop Board D945GCCR

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This document is an update to the specifications contained in the *Intel<sup>®</sup> Desktop Board D945GCCR Technical Product Specification* (Order Number D80699). 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<sup>™</sup>2 Extreme Processor X6800Δ and Intel<sup>®</sup> Core<sup>™</sup>2 Duo Desktop Processor E6000Δ Sequence Specification Update* (Order Number 313279)
- *Intel<sup>®</sup> Pentium<sup>®</sup> D Processor 900Δ Sequence and Intel<sup>®</sup> Pentium<sup>®</sup> Processor Extreme Edition 955Δ, 965Δ Specification Update* (Order Number 310307)
- *Intel<sup>®</sup> Pentium<sup>®</sup> D Processor 800Δ Sequence and Intel<sup>®</sup> Pentium<sup>®</sup> Processor Extreme Edition 840Δ Specification Update* (Order Number 306832)
- *Intel<sup>®</sup> Pentium<sup>®</sup> 4 Processor 6x1Δ Sequence Specification Update* (Order Number 310309)
- *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> 945 Express Chipset Family Specification Update* (Order Number 307503) for specification updates concerning the 82945GC GMCH Controller and that may apply to the desktop board D945GCCR. 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 D945GCCR. 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 D945GCCR Identification Information

AA Revision	BIOS Revision	Notes
D78645-300	CR94510J.86A.0031.2006.1212.1648	1,2
D78645-301	CR94510J.86A.0031.2006.1212.1648	1,2
D78645-302	CR94510J.86A.0037.2007.0103.1611	1,2
D78645-303	CR94510J.86A.0037.2007.0103.1611	1,2
D78645-304	CR94510J.86A.0049.2007.0522.1433	1,2
D78647-300	CR94510J.86A.0031.2006.1212.1648	1,2
D78647-301	CR94510J.86A.0031.2006.1212.1648	1,2
D78647-302	CR94510J.86A.0037.2007.0103.1611	1,2
D78647-303	CR94510J.86A.0037.2007.0103.1611	1,2
D78647-304	CR94510J.86A.0049.2007.0522.1433	1,2

Notes:

1. The AA number is found on a small label on the component side of the board.
2. The 945 Chipset kit used on this AA revision consists of two components as follows:

Device	Stepping	S-Spec Numbers
82945GC	A2	SL9Z8
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 D945GCCR. 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	Specification Changes
1	Doc	Section 1.1.1 of the Technical Specification will be updated in its entirety as follows to remove reference to 4 GB of system memory support and replace with 2 GB of system memory support.
No.	Plans	Errata
		There are no characterized erratum for this product

## Specification Changes

Changes to the feature description in the board technical product specification. Typically the customer does not have to do anything to achieve proper device functionality as a result of the change.

1. Section 1.1.1 of the Technical Specification will be updated in its entirety as follows to remove reference to 4 GB of system memory support and replace with 2 GB of system memory support.

### 1.1.1 Feature Summary

- Two 240-pin DDR2 SDRAM Dual Inline Memory Module (DIMM) sockets
- Support for DDR2 533 or DDR2 400 MHz DIMMs
- Support for up to 2 GB of system memory