



# Intel<sup>®</sup> Desktop Board DG965MS Specification Update

January 2008

Order Number: D65913-004

The Intel<sup>®</sup> Desktop Board DG965MS 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 DG965MS | August 2006  |
| -002     | Updated the General Information Section and added Specification Changes 1            | October 2006 |
| -003     | Added Specification Changes 2  | January 2007 |
| -004     | Updated the General Information Section  | January 2008 |

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The Intel® Desktop Board DG965MS 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  
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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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# Specification Update for the Intel<sup>®</sup> Desktop Board DG965MS

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This document is an update to the specifications contained in the *Intel<sup>®</sup> Desktop Board DG965MS Technical Product Specification* (Order Number D56016). 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 X6800 $\Delta$  and Intel<sup>®</sup> Core<sup>™</sup>2 Duo Desktop Processor E6000 $\Delta$  Sequence Specification Update* (Order Number 313279)
- *Intel<sup>®</sup> Pentium<sup>®</sup> D Processor 900 $\Delta$  Sequence and Intel<sup>®</sup> Pentium<sup>®</sup> Processor Extreme Edition 955 $\Delta$ , 965 $\Delta$  Specification Update* (Order Number 310307)
- *Intel<sup>®</sup> Pentium<sup>®</sup> D Processor 800 $\Delta$  Sequence and Intel<sup>®</sup> Pentium<sup>®</sup> Processor Extreme Edition 840 $\Delta$  Specification Update* (Order Number 306832)
- *Intel<sup>®</sup> Pentium<sup>®</sup> 4 Processor 6x1 $\Delta$  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> 965 Express Chipset Family Specification Update* (Order Number 313054) for specification updates concerning the 82G965 GMCH Controller and that may apply to the desktop board DG965MS. 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 Hub8 (ICH8) Family Specification Update* (Order Number 313057) for specification updates concerning the 82801HB I/O Controller Hub and that may apply to the desktop board DG965MS. Unless otherwise noted in this document, it should be assumed that any ICH8 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 DG965MS Identification Information

| AA Revision | BIOS Revision     | Notes |
|-------------|-------------------|-------|
| D35508-402  | MQ96510J.86A.0784 | 1,2   |
| D35508-403  | MQ96510J.86A.0816 | 1,2   |
| D35508-404  | MQ96510J.86A.1577 | 1,2   |
| D35508-405  | MQ96510J.86A.1577 |       |
| D35508-406  | MQ96510J.86A.1577 | 1,2   |

Notes:

1. The AA number is found on a small label on the component side of the board.
2. The 965 Chipset kit used on this AA revision consists of two components as follows:

| Device  | Stepping | S-Spec Numbers |
|---------|----------|----------------|
| 82G965  | C2       | SL9R5          |
| 82801HB | B0       | SL9MN          |

## Summary of Changes

The following table indicates the Specification Changes, Errata, Specification Clarifications, or Documentation Changes that apply to the Intel® Desktop Board DG965MS. 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   | Changes to Section 1.7.2 Audio Connectors                           |
| 2   | Doc   | Changes to Section 1.8.1 Intel® 82566DC Gigabit Ethernet Controller |
| 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. The following note will be added to the Technical Product Specification in Section 1.7.2 Audio Connectors:

## INTEGRATOR'S NOTES

*Electrostatic discharge (ESD) can damage desktop board components. Front-panel connectors should provide sufficient protection to prevent ESD damage to components inside the chassis enclosure.*

2. Section 1.8.1 of the Technical Specification will be updated in its entirety as follows to remove reference to Jumbo frame support.

### **1.8.1 Intel® 82566DC Gigabit Ethernet Controller**

The Intel® 82566DC Gigabit Ethernet Controller supports the following features:

- PCI Express link
- 10/100/1000 IEEE 802.3 compliant
- Compliant to IEEE 802.3x flow control support
- TCP, IP, UDP checksum offload
- Transmit TCP segmentation
- Advanced packet filtering
- Full device driver compatibility
- PCI Express Power Management Support