



Intel[®] Desktop Board DP965LT Specification Update

May 2008

Order Number D63336-006US

The Intel[®] Desktop Board DP965LT 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 DP965LT. | June 19, 2006 |
| -002 | Added Intel® Core™2 Duo information and updated chipset specification update information. Added Erratum 1 & 2. | October 2006 |
| -003 | Added Specification Changes 1. | November 2006 |
| -004 | Added Specification Changes 2. | February 2007 |
| -005 | Updated the General Information table. | November 2007 |
| -006 | Updated Specification Changes Section. | May 2008 |

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The Intel® Desktop Board DP965LT 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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Contents

Specification Update for the Intel® Desktop Board DP965LT

- Terminology 5
- General Information 5
- Summary of Changes 6
- Specification Changes 6
- Errata 8

Specification Update for the Intel[®] Desktop Board DP965LT

This document is an update to the specifications contained in the *Intel[®] Desktop Board DP965LT Technical Product Specification* (Order Number D56017). 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[®] Core™2 Extreme Processor X6800Δ and Intel[®] Core™2 Duo Desktop Processor E6000Δ Sequence Specification Update* (Order Number: 313279)
- *Intel[®] Pentium[®] 4 Processor 6x1Δ Sequence Specification Update* (Order Number: 310309)
- *Intel[®] Pentium[®] 4 Processor on 90 nm Process Specification Update* (Order Number: 302352)
- *Intel[®] Pentium[®] 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[®] P965 Broadwater Chipset Specification Update* (Order Number: 313054) for specification updates concerning the 82P965 MCH Controller and that may apply to the desktop board DP965LT. 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[®] 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 DP965LT. 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 DP965LT Identification Information

| AA Revision | BIOS Revision | Notes |
|-------------|-------------------|-------|
| D41694-302 | MQ96510J.86A.1715 | 1,2 |
| D41694-301 | MQ96510J.86A.1687 | 1,2 |
| D41694-211 | MQ96510J.86A.1687 | 1,2 |
| D41694-210 | MQ96510J.86A.1676 | 1,2 |
| D41694-209 | MQ96510J.86A.1612 | 1,2 |
| D41694-208 | MQ96510J.86A.1612 | 1,2 |
| D41694-207 | MQ96510J.86A.1577 | 1,2 |
| D41694-206 | MQ96510J.86A.0816 | 1,2 |
| D41694-205 | MQ96510J.86A.784 | 1,2 |
| D41694-204 | MQ96510J.86A.725 | 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 |
|---------|----------|----------------|
| 82P965 | C1 | SL9NU |
| 82P965 | C2 | SL9QX |
| 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 DP965LT. 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 | Change to Section 1.7.2 Audio Connectors |
| 2 | Doc | Change to Section 1.8.1 82566DC Gigabit Ethernet Controller |
| 3 | Doc | Section 3.11 has been added to the Technical Specification. |

| No. | Plans | Errata |
|-----|-------|--|
| 1 | Fixed | Doing extended Boot cycling will occasionally observe board hang at POST code 46 |
| 2 | Fixed | Intel® Quiet System Technology fails to initialize properly |

Specification Changes

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 Product 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

3. Section 3.11 has been added to the Technical Specification.

3.11 Intel® System Recovery Tool

The Intel® Desktop Board DP965LT incorporates the Intel® System Recovery Tool. The Intel System Recovery Tool is an embedded backup and recovery tool located in the BIOS of this Intel® Architecture motherboard.

Intel System Recovery Tool is built upon the Unified Extensible Firmware Interface (UEFI) specification and is embedded in the motherboard BIOS. Therefore, it is easy to use and suitable for multiple usage models.

Backup

The Backup feature allows you to backup all data from a specified partition to another partition or to a USB disk.

Restore

Restore allows you to restore a partition using an image file from a previous backup.

| | |
|-----------------------------|--|
| Hard Drives Required | 1 or 2 |
| Advantage | Graphic user interface – Simple and easy-to-use Streamlined backup & restore process – Only three quick steps Good for all PC users. No IT background required No installation required, built into BIOS. |
| Disadvantage | Decreased volume capacity if single drive used, no decrease in volume capacity if second drive used. May be internal or external such as USB disk. |
| Application | System and data protection; restoration of the master drive to a previous or default state. |

You can learn more about Intel System Recovery Tool at <http://platformadmintech.intel.com/srt/>

Errata

1. Doing extended Boot Cycling will occasionally observe board hang at POST code 46
PROBLEM: When doing Boot Cycling testing the board can experience a hard hang at POST Code 46
IMPLICATION: If the board fails during Boot cycling due to this erratum the customer will observe a hung system and will need to reset the system to continue.
WORKAROUND: None
STATUS: Fixed in BIOS MQ96510J.86A.0816.
2. Intel® Quiet System Technology fails to initialize properly
PROBLEM: Intel Quiet System Technology fails to initialize and max fan speed results
IMPLICATION: If the ME-HECI controller fails to initialize correctly then the Intel Quiet System Technology will not work and the customer will experience increase system sound levels.
WORKAROUND: None
STATUS: Fixed in BIOS MQ96510J.86A.0816.