



Intel® Desktop Board D915GAG Specification Update

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The Intel® Desktop Board D915GAG 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 D915GAG 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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REVISION HISTORY

Date of Revision	Version	Description
June 21, 2004	-001	This document is the first Specification Update for the Intel® Desktop Board D915GAG.
February 2005	-002	Added Documentation Change 1.
March 2005	-003	Added Erratum 1.
July 2006	-004	Added Specification Changes 1, Erratum 2 and updated the General Information table.



PREFACE

This document is an update to the specifications contained in the *Intel® Desktop Board D915GAG Technical Product Specification* (Order number C68600). 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 D915GAG. 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® 915G Chipset: 82915G Graphics Memory Controller Hub (GMCH) Specification Update* (Order Number 301468) for specification updates concerning the 82915G MCH Controller and that may apply to the desktop board D915GAG. 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® 82801FB I/O Controller Hub 6 (ICH6) Specification Update* (Order Number 301474) for specification updates concerning the 82801ER I/O Controller Hub and that may apply to the desktop board D915GAG. Unless otherwise noted in this document, it should be assumed that any ICH 6 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 D915GAG'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 D915GAG



GENERAL INFORMATION

Basic Desktop Board D915GAG Identification Information

AA Revision	BIOS Revision	Notes
C64259-301	EV91510A.86A.0213	1-2
C64259-302	EV91510A.86A.0213	1-2
C64259-303	EV91510A.86A.401	1-2
C64259-304	EV91510A.86A.444	1-2
C64259-305	EV91510A.86A.444	1-2
C64259-501	EV91510A.86A.444	1-2
C64259-502	EV91510A.86A.444	1-2
C64123-301	EV91510J.86A.213	1-2
C64123-302	EV91510J.86A.213	1-2
C64123-303	EV91510J.86A.213	1-2
C64123-304	EV91510A.86A.401	1-2
C64123-305	EV91510A.86A.444	1-2
C64123-501	EV91510A.86A.444	1-2
C64123-502	EV91510A.86A.444	1-2
C89289-100	EV91510J.86A.283	1-2
C89289-101	EV91510A.86A.401	1-2
C89289-102	EV91510A.86A.444	1-2
C89289-301	EV91510A.86A.444	1-2
C89289-302	EV91510A.86A.444	1-2

NOTES:

1. The AA number is found on a small label on the component side of the board.
2. The 82915G Chipset kit used on this AA revision consists of two components as follows:

Device	Stepping	S-Spec Numbers
82915G GMCH	B1	SL7LX
82801FB ICH6	B1	SL7AG



Summary Table of Changes

The following table indicates the Specification Changes, Errata, Specification Clarifications, or Documentation Changes that apply to the Intel® Desktop Board D915GAG. 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 may 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	SPECIFICATION CHANGES
1	Doc	Changes to Section 2.8.2.3, Add-in Card Connectors
NO.	PLANS	ERRATA
1	Plan Fix	Wake On LAN may not function after loss and restore of AC power.
2	Plan Fix	The placement of capacitors behind the PCI Express* x1 connector slot may prohibit some PCI Express x1 Add-in cards from properly connecting to the motherboard
NO.	PLANS	DOCUMENTATION CHANGES
1	Doc	Incorrect Operating Voltage Listed for Supported Memory in Section 1.6, System Memory



SPECIFICATION CHANGES

The Specification Changes listed in this section apply to the *Desktop Board D915GAG Technical Product Specification* (Order Number C68600). All Specification Changes will be incorporated into a future version of that specification.

- The following note will be added to the TPS in Section 2.8.2.3 Add-in Card Connectors:***

NOTE

Capacitors required for the audio circuitry are located within the ATX keep-out area near the PCI Express x1 slot, and may limit the use of some PCI Express x1 cards.*



ERRATA

1. *Wake On LAN May Not Function After Loss and Restore of AC Power*

PROBLEM: If AC power is removed, Wake On LAN may not function until the LAN circuit is re-initialized. The sequence of events is as follows:

- AC power removed (AC power cord disconnected, for example)
- AC power restored. +5V Standby voltage is re-applied to the board
- Wake On LAN may not be functional
- Switch power on
- Switch power off to put system back into Standby mode (S5 state)
- Wake On LAN functionality restored

IMPLICATION: Wake on LAN will not function if AC power is interrupted.

WORKAROUND: In the BIOS Setup program, set After Power Failure to "Power On" in the Power Menu.

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

2. **The placement of capacitors behind the PCI Express* x1 connector slot may prohibit some PCI Express x1 add-in cards from properly connecting to the motherboard.**

PROBLEM: Due to the design and placement of the audio circuitry on this motherboard, it was necessary to position capacitors in the keep-out zone behind the PCI Express* x1 connector slot.

IMPLICATION: Some PCI Express x1 add-in cards may not fully connect to the PCI Express x1 connector slot, due to interference between capacitors in the keep-out zone and I/O connectors on the add-in card that are located on the I/O bracket, in line with the edge fingers on the card.

WORKAROUND: None

STATUS: MAY BE FIXED IN A LATER HARDWARE REVISION.



DOCUMENTATION CHANGES

The Documentation Changes listed in this section apply to the *Intel® Desktop Board D915GAG Technical Product Specification* (Order Number C68600). All Documentation Changes will be incorporated into a future version of that specification.

1. *Incorrect Operating Voltage Listed for Supported Memory in Section 1.6, System Memory*

Section 1.6, page 20, incorrectly lists the operating voltage for supported memory as 2.5 V. The correct operating voltage is 2.6 V. The first item in the bulleted list in Section 1.6 will be replaced with the following:

- 2.6 V (only) DDR SDRAM DIMMs with gold-plated contacts