



Revolutionize your digital life with the help of Intel® desktop boards.

Intel® desktop boards based on the Intel® 915G Express Chipset.



With the high quality of today's digital content, there is a need for more feature-rich and powerful PCs. The Intel® Desktop Boards D915GEV, D915GUX, D915GAV, and D915GAG help deliver those features and power through high-bandwidth interfaces and support for the latest Intel® Pentium® 4

Processor with HT Technology¹. Based on the Intel® 915G Express Chipset, these boards feature dual-channel DDR2 533 or DDR 400 memory, 800-MHz system bus, integrated Intel® Graphics Media Accelerator 900, PCI Express* graphics and I/O architecture, optional Gigabit LAN, and Hi-Speed USB 2.0 connectivity.

For today's digital office, the Intel Desktop Boards D915GEV and D915GUX deliver next-generation security technology with the Trusted Platform Module (featured on desktop boards with Gigabit LAN). This component on the desktop motherboard enhances platform security above-and-beyond the capabilities of today's software. Defined by the Trusted Computing Group's public specification, the TPM provides hardware-based protection for the encryption and digital signature keys that secure your data's confidentiality.

Intel® Desktop Boards D915GEV, D915GUX, D915GAV, and D915GAG

Intel® desktop boards based on the Intel® 915G Express Chipset deliver innovative technologies and high-bandwidth interfaces to help revolutionize your digital home and office.



The Intel® Desktop Boards D915GEV, D915GUX, D915GAV, and D915GAG support the latest Intel® Pentium® 4 processors featuring Hyper-Threading Technology² and are designed to optimize a broad range of usage models in the office and at home. These desktop boards feature Intel® High Definition Audio, Gigabit LAN (optional), Trusted Platform Module (optional), and PCI Express* expansion slots. In addition, these desktop boards deliver exceptional platform flexibility with both PCI Express* x16 graphics and Intel® Graphics Media Accelerator 900, as well as your choice of support for dual-channel DDR2 533/400 or dual-channel DDR 400/333 memory.

Boxed Intel® Desktop Boards D915GEV, D915GUX, D915GAV, and D915GAG solution includes:

- Desktop Board D915GEV, D915GUX, D915GAV, or D915GAG
- ATX 2.01 compliant I/O shield
- Floppy, SATA, and ATA 100/66 cables
- Board and back-panel I/O layout stickers
- Quick Reference Guide
- Desktop board three-year limited warranty
- Intel® Express Installer CD, including:
 - Intel® Desktop Utilities**
 - Norton Internet Security*
 - NTI CD-Maker*
 - Musicmatch* Jukebox
 - Sonic Focus*
 - InterVideo* Home Theater Silver
 - InterVideo* WinDVD Creator Silver
 - Farstone* RestoreIT! Lite
 - LANDesk* System Manager†
 - WebEx* Personal Edition†
 - Software Drivers
 - Desktop Board Product Guide

Intel® Desktop Boards

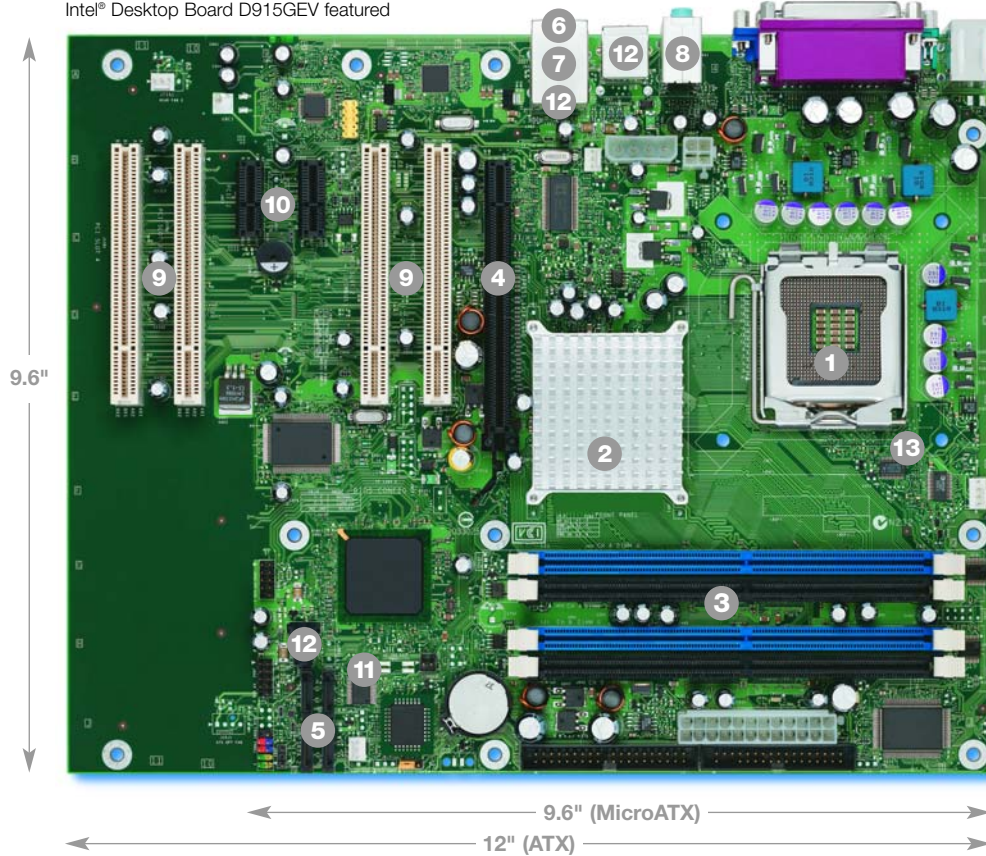


Segment	Intel® Desktop Board D915GEV Mainstream ATX
Product Code/UPC	BOXD915GEV / 00735858166102 BOXD915GEVL (Intel® PRO 10/100) / 00735858166089 BOXD915GEVLK (GbE LAN) / 00735858166065
10-pack Product Code/UPC	BLKD915GEV / 00735858166119 KD915GEVPAK10 BLKD915GEVL (Intel PRO 10/100) / 00735858166096 KD915GEVLPAK10 (Intel PRO 10/100) BLKD915GEVLK (GbE LAN) / 00735858166072 KD915GEVLKPAK10 (GbE LAN)
Processor Support	Intel® Pentium® 4 processors in the LGA775 package Supports boxed Intel processors with packaging designated by 04B or 04A
Supported FSB	800 MHz / 533 MHz
Chipset	Intel® 915G Express Chipset
Supports HT Technology¹	Yes
Graphics	Intel® Graphics Media Accelerator 900
Graphics Connector	PCI Express* x16
Memory Support	DDR2 533/400 SDRAM 4 slots, Dual-channel (4 GB Max)
Expansion Slots	2 PCI Express* x1, 4 PCI
Audio	Intel® High Definition Audio: Flexible 6-channel audio with jack sensing
USB Ports	Hi-Speed USB 2.0, 4 Back Ports / 4 Ports via 2 internal headers
1394	None
Storage	SATA150 (1.5 Gb/s) (4 ports) and ATA100/66 up to two devices
RAID	None
On-Board LAN	Gigabit LAN Solution, Intel PRO 10/100, or No-LAN
TPM	Yes on Gigabit LAN SKU
Software	Intel® Express Installer Intel® Desktop Utilities** Sonic Focus* Wave Systems* EMBASSY* Trust Suite (on TPM Sku) Norton Internet Security* NTI CD-Maker* Musicmatch* Jukebox InterVideo* Home Theater Silver InterVideo* WinDVD Creator Silver Farstone* RestoreIT! Lite LANDesk* System Manager† WebEx* Personal Edition†
Warranty	Three-year limited warranty



Intel® Desktop Board D915GUX Mainstream MicroATX	Intel® Desktop Board D915GAV Mainstream ATX	Intel® Desktop Board D915GAG Mainstream MicroATX
BOXD915GUXL (Intel® PRO 10/100) / 00735858166140 BOXD915GUXLK (GbE LAN) / 00735858166126	BOXD915GAV / 00735858166188 BOXD915GAVL (Intel® PRO 10/100) / 00735858166164	BOXD915GAGL (Intel® PRO 10/100) / 00735858166201
BLKD915GUXL (Intel PRO 10/100) / 00735858166157 KD915GUXLPAK10 (Intel PRO 10/100) BLKD915GUXLK (GbE LAN) / 00735858166133 KD915GUXLPAK10 (GbE LAN)	BLKD915GAV / 00735858166195 KD915GAVPAK10 BLKD915GAVL (Intel PRO 10/100) / 00735858166171 KD915GAVLPAK10 (Intel PRO 10/100)	BLKD915GAGL (Intel PRO 10/100) / 00735858166218 KD915GAGLPAK10 (Intel PRO 10/100)
Intel® Pentium® 4 processors in the LGA775 package Supports boxed Intel processors with packaging designated by 04B or 04A	Intel® Pentium® 4 processors in the LGA775 package Supports boxed Intel processors with packaging designated by 04B or 04A	Intel® Pentium® 4 processors in the LGA775 package Supports boxed Intel processors with packaging designated by 04B or 04A
800 MHz / 533 MHz	800 MHz / 533 MHz	800 MHz / 533 MHz
Intel® 915G Express Chipset	Intel® 915G Express Chipset	Intel® 915G Express Chipset
Yes	Yes	Yes
Intel® Graphics Media Accelerator 900	Intel® Graphics Media Accelerator 900	Intel® Graphics Media Accelerator 900
PCI Express* x16	PCI Express* x16	PCI Express* x16
DDR2 533/400 SDRAM 4 slots, Dual-channel (4 GB Max)	DDR 400/333 SDRAM 4 slots, Dual-channel (4 GB Max)	DDR 400/333 SDRAM 4 slots, Dual-channel (4 GB Max)
1 PCI Express* x1, 2 PCI	2 PCI Express* x1, 4 PCI	1 PCI Express* x1, 2 PCI
Intel® High Definition Audio: Flexible 6-channel audio with jack sensing	Intel® High Definition Audio: Flexible 6-channel audio with jack sensing	Intel® High Definition Audio: Flexible 6-channel audio with jack sensing
Hi-Speed USB 2.0, 4 Back Ports / 4 Ports via 2 internal headers	Hi-Speed USB 2.0, 4 Back Ports / 4 Ports via 2 internal headers	Hi-Speed USB 2.0, 4 Back Ports / 4 Ports via 2 internal headers
None	None	None
SATA150 (1.5 Gb/s) (4 ports) and ATA100/66 up to two devices	SATA150 (1.5 Gb/s) (4 ports) and ATA100/66 up to two devices	SATA150 (1.5 Gb/s) (4 ports) and ATA100/66 up to two devices
None	None	None
Gigabit LAN Solution or Intel PRO 10/100	Intel PRO 10/100 or No-LAN	Intel PRO 10/100
Yes on Gigabit LAN SKU	No	No
Intel® Express Installer Intel® Desktop Utilities** Sonic Focus* Wave Systems* EMBASSY* Trust Suite (on TPM Sku) Norton Internet Security* NTI CD-Maker* Musicmatch* Jukebox InterVideo* Home Theater Silver InterVideo* WinDVD Creator Silver Farstone* RestoreIT! Lite LANDesk* System Manager† WebEx* Personal Edition†	Intel® Express Installer Intel® Desktop Utilities** Sonic Focus* Norton Internet Security* NTI CD-Maker* Musicmatch* Jukebox InterVideo* Home Theater Silver InterVideo* WinDVD Creator Silver Farstone* RestoreIT! Lite LANDesk* System Manager† WebEx* Personal Edition†	Intel® Express Installer Intel® Desktop Utilities** Sonic Focus* Norton Internet Security* NTI CD-Maker* Musicmatch* Jukebox InterVideo* Home Theater Silver InterVideo* WinDVD Creator Silver Farstone* RestoreIT! Lite LANDesk* System Manager† WebEx* Personal Edition†
Three-year limited warranty	Three-year limited warranty	Three-year limited warranty

Intel® Desktop Board D915GEV featured



Features and Benefits

Intel® Desktop Boards D915GEV, D915GUX, D915GAV, and D915GAG

- 1 Support for the Intel® Pentium® 4 processor featuring Hyper-Threading Technology²:** Supports today's highest Intel® processor frequencies with 800- or 533-MHz system bus via the LGA775 socket. Supports boxed Intel processors with packaging designated by 04B or 04A.
- 2 Intel® 915G Express Chipset featuring Intel® Graphics Media Accelerator 900:** Low-cost, high-performance graphics solution.
- 3 Dual-channel DDR2 533/400 or DDR 400/333 SDRAM support:** Four DIMM sockets designed to support up to 4 GB³ of DDR2 533/400 (Desktop Boards D915GEV, D915GUX) or DDR 400/333 (Desktop Boards D915GAV, D915GAG) SDRAM memory. Flexible support for either single- or dual-channel operation.
- 4 PCI Express* x16 graphics interface:** Increased graphics bandwidth delivers up to 8 GB/s (up to four times faster than previous AGP solutions).
- 5 Four Serial ATA150 ports:** Facilitates high-speed storage transfers at up to 1.5 Gb/s per port, allows easier hard drive upgrades and expansion for new SATA optical drives.
- 6 Integrated Intel® PRO 10/100 LAN (optional):** On-board 10/100-Mbps Ethernet LAN connectivity.
- 7 Integrated Gigabit LAN (optional):** Runs up to 10 times faster than conventional 10/100 LAN connections.
- 8 Intel® High Definition Audio:** Flexible 6-channel audio with jack sensing. High-quality integrated audio that rivals the performance of high-end discrete solutions.
- 9 Four PCI connectors (Desktop Boards D915GEV, D915GAV) or two PCI connectors (Desktop Boards D915GUX, D915GAG):** Expansion slots for custom system configurations and future add-in card upgrades.
- 10 Two PCI Express* x1 connectors (Desktop Boards D915GEV, D915GAV) or one PCI Express* connector (Desktop Boards D915GUX, D915GAG):** With a 500 MB/s concurrent data transfer bandwidth, easily doubles the I/O bandwidth of traditional PCI architecture.
- 11 Trusted Platform Module (optional):** Helps enhance platform security above-and-beyond the capabilities of today's software.
- 12 Eight Hi-Speed USB 2.0 ports:** Four back-panel ports and an additional four front-panel USB ports via two internal headers.
- 13 Intel® Precision Cooling Technology:** Advanced management ASIC supports temperature-based fan control. Automatically adjusts the processor fan speed based on the processor temperature and adjusts the chassis fan speeds depending on the system temperature. System fan noise may be reduced by operating controlled chassis and processor fans at the minimum necessary speeds.
- 14 Instantly-Available PC (suspend-to-RAM):** Enables advanced power savings (not pictured).

Technical Specifications

Processor

Processors Supported

Intel® Pentium® 4 processor supporting Hyper-Threading Technology² with 800-MHz system bus in the LGA775 socket

Intel® Pentium® 4 processors with 533-MHz system bus in the LGA775 socket

Supports boxed Intel processors with packaging designated by 04B or 04A

Intel® 915G Express Chipset

Intel® 82915G Memory Controller Hub (MCH)

Intel® 82801FB I/O Controller Hub (ICH6)

Firmware Hub (FWH)

Graphics Memory Controller Hub (GMCH)

Designed to support up to 4 GB³ of system memory using DDR2 533/400 (Desktop Boards D915GEV, D915GUX) or DDR 400/333 (Desktop Boards D915GAV, D915GAG) SDRAM memory

Intel® ICH6 I/O Controller Hub

Four SATA (1.5 Gb/s) ports

Up to two ATA 100/66 devices

Four PCI request-grant pairs for support for four PCI bus masters (Desktop Boards D915GEV, D915GAV)

Two PCI request-grant pairs for support of two PCI bus masters (Desktop Boards D915GUX, D915GAG)

Intel® PRO/100 network connection (optional)

Gigabit LAN (optional)

I/O Features

Integrated super I/O LPC bus controller:

- Four PCI local bus slots (Desktop Boards D915GEV, D915GAV)
- Two PCI Express* x1 local bus slots (Desktop Boards D915GEV, D915GAV)
- Two PCI local bus slots (Desktop Boards D915GUX, D915GAG)
- One PCI Express* x1 local bus slot (Desktop Boards D915GUX, D915GAG)

USB 2.0

Integrated Intel® ICH6 controllers:

- Four back-panel ports (two dual stack)
- Four front-panel ports (via 2-headers requiring cabling to front panel)

Firmware Hub

System BIOS

4-Mb Flash EEPROM with Intel/AMI* BIOS featuring Plug and Play, IDE drive auto-configure

Advanced configuration and power interface V1.0b, DMI 2.0, multilingual support

Intel® Rapid BIOS Boot

Optimized POST for fast access to PC from power-on

System Memory

Memory Capacity

Four 240-pin DIMM connectors supporting up to four double-sided DIMMs (Desktop Boards D915GEV, D915GUX)

Four 184-pin DIMM connectors supporting up to four double-sided DIMMs (Desktop Boards D915GAV, D915GAG)

Memory Types

DDR2 533/400 SDRAM memory (Desktop Boards D915GEV, D915GUX)

DDR 400/333 SDRAM memory (Desktop Boards D915GAV, D915GAG)

Non-ECC RAM

(ECC memory will run in non-ECC mode)

Memory Modes

Dual- and single-channel operation support

Memory Voltage

1.8V (Desktop Boards D915GEV, D915GUX)

2.5V (Desktop Boards D915GAV, D915GAG)

Hardware Management Features

Processor fan speed control

System chassis fan speed control

Voltage and temperature sensing

Fan sensor inputs used to monitor fan activity

Power management support for ACPI 1.0b

Wake-Up From Network

Wired for Management (WiM) 2.0-compatible

Support for system wake-up using an add-in network interface card with remote wake-up capability or integrated LAN

Expansion Capabilities

Four PCI bus add-in card connectors (Desktop Boards D915GEV, D915GAV)

Two PCI Express* x1 bus add-in card connectors (Desktop Boards D915GEV, D915GAV)

Two PCI bus add-in card connectors (Desktop Boards D915GUX, D915GAG)

One PCI Express* x1 bus add-in card connector (Desktop Boards D915GUX, D915GAG)

One PCI Express* x16 graphics connector

Jumpers and Front-Panel Connectors

Jumpers

Single configuration jumper design

Jumper access for BIOS configuration mode

Front-Panel Connectors

Reset, HD LED, Power LEDs, power on/off

Two front-panel Hi-Speed USB 2.0 headers

Front-panel audio header

Mechanical

Board Style

Desktop Boards D915GEV, D915GAV—ATX 2.03-compliant
Desktop Boards D915GUX, D915GAG—MicroATX 1.0-compliant

Board Size

Desktop Boards D915GEV, D915GAV—12" x 9.6"
Desktop Boards D915GUX, D915GAG—9.6" x 9.6"

Baseboard Power Requirements

Desktop Boards D915GEV, D915GAV—ATX12V
Desktop Boards D915GUX, D915GAG—ATX12V or SFX12V

Environment Operating Temperature

0° C to +55° C

Storage Temperature

-40° C to +70° C

Regulations

Safety Regulations

U.S. and Canada

UL 1950, Third edition—CAN/CSA C22.2 No. 950-95 with recognized U.S. and Canadian component marks

Europe

Nemko certified to EN 60950

International

Nemko certified to IEC 60950 (CB report with CB certificate)

EMC regulations

(tested in representative chassis)

U.S.

FCC Part 15, Class B

U.S.

FCC Part 15, Class B open-chassis (cover off) testing

Canada

ICES-003, Class B

Europe

EMC directive 89/336/EEC; EN 55022:1998, Class B; EN 55024:1998

Australia/New Zealand

AS/NZS 3548, Class B

Taiwan

CNS 13438, Class B

International

CISPR 22:1997, Class B

Power requirements vary. Complies with US CRF via EN55022 +6 db in system configurations with an open chassis and EU Directive 89/336/EEC and use via EN55022 and EN50082-1 in a representative chassis.

Ordering Information: See Intel's Web site at www.intel.com.

For the most current product information available, visit Intel's Web site at: developer.intel.com/design/motherbd/

¹ Look for systems with the Intel® Pentium® 4 Processor with HT Technology logo and also including an Intel® 925X or 915 Express Chipset (see the product spec sheet or ask your salesperson). Performance and functionality will vary depending on (i) the specific hardware and software you use and (ii) the feature enabling/system configuration by your system vendor. See <http://www.intel.com/info/hyperthreading> for information on HT Technology or consult your system vendor for more information.

² Hyper-Threading Technology requires a computer system with an Intel® Pentium® 4 processor supporting Hyper-Threading Technology and an HT Technology enabled chipset, BIOS and operating system. Performance will vary depending on the specific hardware and software you use. See <http://www.intel.com/info/hyperthreading/> for more information including details on which processors support HT Technology.

³ Desktop Boards D915GEV, D915GUX, D915GAV, and D915GAG were designed to support up to 4-GB total system memory using DIMMs based on 512-Mbit or 1-Gbit technologies. 1-Gbit technology has not been validated on these Intel® desktop boards. For more information about the latest list of tested memory, refer to the Intel World Wide Web site at: <http://support.intel.com/support/motherboards/desktop/>.

** Intel® Desktop Utilities includes: hardware monitoring, Diskkeeper® Lite defragmentation, NTI Backup Now®, StressTest®, Symantec® Security Check.

¹ Available by Internet download only. Third-party user registration required.

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