



MicroATX Form Factor

Intel® Desktop Board DG35EC Classic Series

Experience new levels of 3D and media performance

Flexible. Reliable. Affordable.

The ideal mainstream platform for home and office applications.

Experience new levels of digital living.

Explore new possibilities and enjoy the digital lifestyle with the latest Intel® Desktop Board DG35EC, based on the Intel® G35 Express Chipset. This board, coupled with the power of the Intel® Core™2 Quad** and Intel® Core™2 Duo processors, allows you to experience a new level of digital exhilaration.

More flexibility. More possibilities.

This Intel® Desktop Board is built to support a range of processors, including the Intel Core 2 Quad and Intel Core 2 Duo processors. If you are running applications with high memory needs, this solution delivers up to 8 GB¹ support for DDR2 800 / 667 SDRAM memory.

Besides delivering outstanding performance and stability, the integrated graphics and connectors meet a variety of digital needs.

- Experience the new generation of graphics capabilities with Intel® Graphics Media Accelerator X3500 and Intel® Clear Video Technology.
- Get full 1080p video playback for movie clips, media streams, and the latest generation of HD video cameras, without the need for an add-in video card.

- Enjoy the rich sound quality of the Intel® High Definition Audio with 5.1 surround sound.
- Download your favorite moments directly from your digital camcorder to your computer via the IEEE-1394a port.
- Up to ten USB ports support all your computer peripherals.
- Enjoy great network connectivity with the integrated Intel® PRO 10/100/1000 Network Connection.
- Microsoft* Windows Vista* Premium WHQL certified.



Intel® Desktop Board DG35EC

Be ravished by your new digital experience as you benefit from the host of software included with the Intel® Desktop Board DG35EC.

- Enhance your multimedia experience with software such as Premium VoIP Service Offers.
- Make the most out of the software such as Diskeeper* Home Edition, Norton Internet Security*, Skype*, TypePad*, Kaspersky* Anti-Virus (Russian), and Kingsoft* Antivirus (Chinese).
- Enjoy hundreds of the Internet's best games with WildTangent*.



The boxed Intel® Desktop Board DG35EC solution includes:

- ATX 2.2 compliant I/O shield
- Floppy, SATA, and ATA 100/66 cables
- Board and back panel I/O layout stickers
- Quick reference guide
- Intel® Express Installer driver and software DVD
- Microsoft* Windows Vista* Premium WHQL certified

Software Included:

- Diskeeper* Home Edition
- Norton Internet Security*
- Skype*
- TypePad*
- WildTangent*
- Kaspersky* Anti-Virus (*Russian*)
- Kingsoft* Antivirus (*Chinese*)

Features and Benefits

Intel® Desktop Board DG35EC

1 Support for the Intel® Core™2 Quad** and Intel® Core™2 Duo processors:

Features quad-core and dual-core processing with 1333 / 1066 / 800 MHz system bus in the LGA775 package.

2 Intel® G35 Express Chipset:

Offers a new level of graphics performance with integrated Intel® Graphics Media Accelerator X3500 (Intel® GMA X3500) with Intel® Clear Video Technology.

3 Dual-Channel DDR2 800 / 667 memory support:

Four DIMM sockets, designed to support up to 8 GB¹ of DDR2 800 / 667 SDRAM memory, delivering greater platform performance and flexible memory support.

4 PCI Express* x16 graphics connector:

Increases graphics bandwidth and provides up to 4 GB/s per direction.

5 Four Serial ATA ports (3.0 Gb/s):

Facilitates high-speed storage and data transfers at up to 3 Gb/s for each of four ports.

6 Intel® 82566DC Gigabit Ethernet Controller:

Features on-board 10 / 100 / 1000 Mbps Ethernet LAN connectivity.

7 Intel® High Definition Audio with 5.1 surround sound:

Enables high-quality integrated audio that rivals the performance of high-end discrete audio solutions.

8 One PCI connector:

Provides expansion slot for custom system configurations and future add-in card upgrades.

9 Two PCI Express* x1 connectors:

Designed for bandwidth-intensive applications, PCI Express x1 I/O offers up to 3.5 times the bandwidth over traditional PCI architecture.

10 Ten Hi-Speed USB 2.0 ports:

Provides six back panel ports and an additional four USB ports via two internal headers.

11 Two IEEE 1394a ports:

One external port and one via internal header.

12 MicroATX form factor



Technical Specifications

Processor

Processor Support

- Intel® Core™2 Quad** processor in the LGA775 package
- Intel® Core™2 Duo processor in the LGA775 package
- Intel® Pentium® Dual-Core processor in the LGA775 package
- Intel® Celeron® Dual-Core processor in the LGA775 package
- Intel® Celeron® 400 Series processor in the LGA775 package
- Supports Intel® 64 Architecture²

Chipset

Intel® G35 Express Chipset

- Intel® 82G35 Graphics and Memory Controller Hub (GMCH)
- Intel® I82801 HB ICH8 I/O Controller Hub
- Serial Peripheral Interface (SPI) Flash

Graphics Memory Controller Hub (GMCH)

- Designed to support up to 8 GB¹ of system memory using DDR2 800 / 667 SDRAM memory
- Intel® Fast Memory Access
- Intel® Graphics Media Accelerator X3500 with Intel® Clear Video Technology

Intel® I/O Controller Hub

- Four SATA (3.0 Gb/s) ports
- Intel® PRO 10 / 100 / 1000 network connection
- Ten Hi-Speed USB 2.0 ports (six back panel ports and an additional four USB ports via two internal headers)

System BIOS

- 8 Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI 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 faster access to PC from power-on

System Memory

Memory Capacity

- Four 240-pin DIMM connectors supporting up to four double-sided DIMMs

Memory Types

- DDR2 800 / 667 SDRAM memory support
- Non-ECC Memory

Memory Modes

- Dual- or single-channel operation support

Memory Voltage

- 1.8V

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

High-Performance Intel® 82566DC Gigabit Network Connections

- High quality and reliability with Intel's world-class manufacturing and validation

Expansion Capabilities

- One PCI bus add-in card connector
- Two PCI Express* x1 bus add-in card connectors
- One PCI Express* x16 graphics connector
- Ultra ATA 100 / 66 devices

Jumpers and Front-Panel Connectors

Jumpers

- Single configuration jumper design
- Jumper access for BIOS maintenance mode

Front-Panel Connectors

- Reset, HDD LED, Power LEDs, power on/off
- Two front-panel Hi-Speed USB 2.0 headers
- One 1394a header
- Front-panel audio header
- One serial header

Mechanical

Board Style

- ATX 2.2-compliant

Board Size

- 9.6" x 9.6" (24.38 cm x 24.38 cm)

Baseboard Power Requirements

- ATX12V

Environment

Operating Temperature

- 0° C to +55° C

Storage Temperature

- 40° C to +70° C

Regulations and Safety Standards

United States and Canada

- CSA/UL 60950-1, First Edition (Binational Standard)

Europe

- (Low Voltage Directive 2006/95/EC) EN 60950-1:2006

International

- IEC 60950-1:2001, First Edition

EMC Regulations

(tested in representative chassis)

United States

- FCC 47 CFR Part 15, Subpart B

Canada

- ICES-003 Class B

Europe

- (EMC Directive 2004/108/EC) EN 55022:2006 and EN 55024:1998

Australia/New Zealand

- EN 55022:2006 Class B

Japan

- VCCI V-3/04.04, V-4/03.04, Class B

South Korea

- KN-22:2005 and KN-24:2005

Taiwan

- CNS 13438:2006 Class B

International

- CISPR 22:2005 +A1:2005 +A2:2006 Class B

Environmental Compliance

Europe

- Europe RoHS (Directive 2002/95/EC)

China

- China RoHS (MII Order # 39)



Lead-Free: The symbol is used to identify electrical and electronic assemblies and components in which the lead (Pb) concentration level in any of the raw materials and the end product is not greater than 0.1% by weight (1000 ppm). This symbol is also used to indicate conformance to lead-free requirements and definitions adopted under the European Union's Restriction on Hazardous Substances (RoHS) directive, 2002/95/EC.

Ordering Information: See the Intel Web site at www.intel.com. For the most current product information, visit developer.intel.com/design/motherbd/

¹ System resources and hardware (such as PCI and PCI Express*) require physical memory address locations that can reduce available addressable system memory. This could result in a reduction of as much as 1GB or more of physical addressable memory being available to the operating system and applications, depending on the system configuration and operating system.

² 64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. See <http://developer.intel.com/technology/intel64/index.htm> for more information.

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** Supports 95W Thermal Design Power, Intel® Core™2 Quad Processors with 1333 / 1066 MHz System Bus. For information, visit www.intel.com/go/findCPU

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