



MicroATX Form Factor

Intel® Desktop Board DG33BU Classic Series

Based on the latest Intel® G33 Express Chipset

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 DG33BU, based on the Intel® G33 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.

The Intel® Desktop Boards are 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 integrated graphics performance that comes with Intel® Graphics Media Accelerator 3100 and Intel® Clear Video Technology.

- 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 1394a port.
- Up to twelve 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 DG33BU



Dive right into your new digital experience and benefit from the host of software included with the Intel® Desktop Board DG33BU.

- Enrich your multimedia experience with software such as Intel® Audio Studio and Premium VoIP Service Offers.
- Enjoy Diskeeper* Home Edition, Norton Internet Security*, Kaspersky* Anti-Virus (Russian), Kingsoft* Antivirus (Chinese), and TypePad*.



Intel® Viiv™ Processor Technology: Essential Ingredient for Entertainment PCs

Intel® Viiv™ processor technology² is a set of PC technologies designed for the enjoyment of digital entertainment in the home. With power for an incredible audio/visual experience, Intel Viiv processor technology is verified with leading software and online service companies around the world. Intel Viiv processor technology allows consumers to control and personalize both their personal digital entertainment libraries and content from an ever-expanding library of online media.

Powered by an Intel dual-core processor, Intel Viiv processor technology can display media in a home theater-quality experience and provide support for up to 5.1 surround sound. Intel Viiv processor technology also makes it easy to find and share content with simple navigation via a remote control³.

TECHNOLOGY

Intel® Viiv™ Processor Technology

Intel® Quick Resume Technology
Intel® Hub Connect Technology

Intel® Viiv™ Media Server

Intel® Smart Streaming Technology

Online services available

BENEFITS

Brings the performance and connectivity of PCs to the world of consumer electronics

Turn the PC on and off instantly
Easier set-up and network management to build your Digital Home

Easier connection to transfer and enjoy premium entertainment and personal digital content

Send movies, music, and pictures from your PC to multiple rooms in your home

Great experience with high definition video throughout your home

Easy access to online and local premium digital entertainment to download movies, music, pictures, and games

The boxed Intel® Desktop Board DG33BU 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 and product guides
- Intel® Express Installer driver CD and software CD
- Microsoft* Windows Vista* Premium WHQL-certified

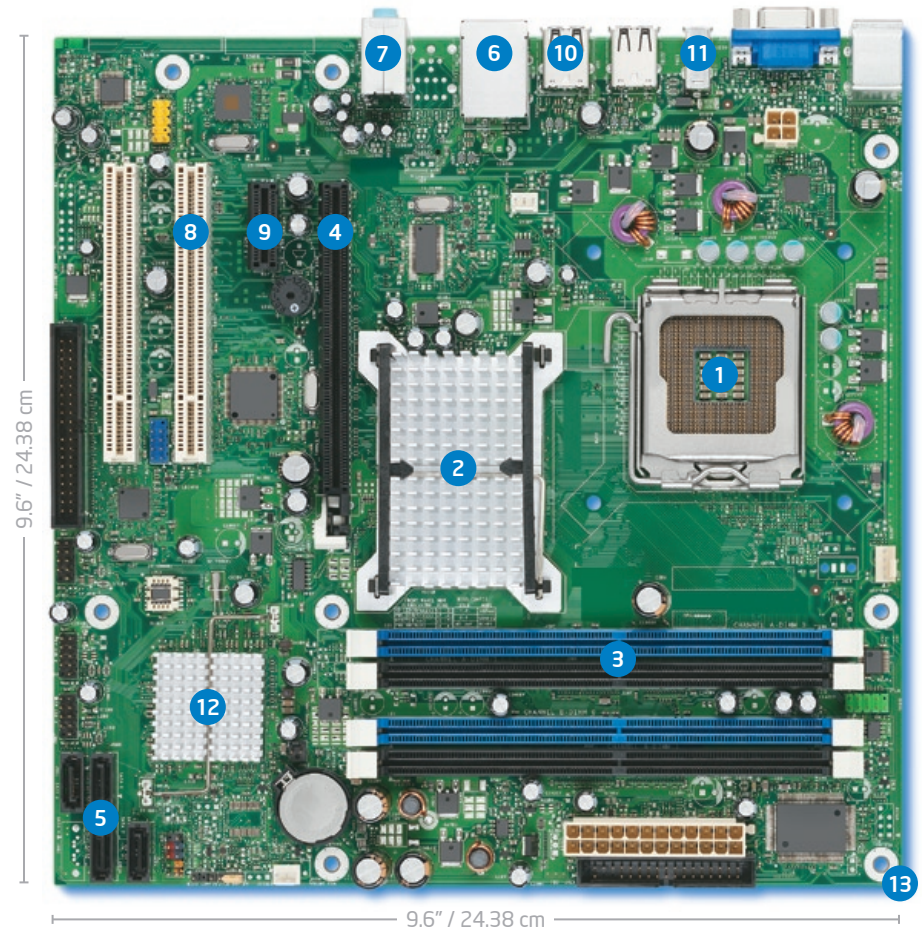
Software Included:

- Intel® Desktop Utilities
- Diskeeper* Home Edition
- Norton Internet Security*
- Skype*
- TypePad*
- Kaspersky* Anti-Virus (Russian)
- Kingsoft* Antivirus (Chinese)

Features and Benefits

Intel® Desktop Board DG33BU

- 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® G33 Express Chipset:** Offers a new level of visual quality with integrated Intel® Graphics Media Accelerator 3100 (Intel® GMA 3100) 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 Integrated Intel® PRO 10/100/1000 Network Connection:** 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 Two PCI connectors:** Provides expansion slots for custom system configurations and future add-in card upgrades.
- 9 One PCI Express* x1 connector:** Designed for bandwidth-intensive applications, PCI Express x1 I/O offers up to 3.5 times the bandwidth over traditional PCI architecture.
- 10 Twelve Hi-Speed USB 2.0 ports:** Provides six back panel ports and an additional six USB ports via three internal headers.
- 11 1394a ports:** One back panel port and one internal header (for an additional port) enable data transfer from consumer electronic devices such as digital camcorders and MP3 players.
- 12 Intel® Quiet System Technology:** Enables advanced fan speed control to keep system cool and reduce noise levels.
- 13 MicroATX form factor**



Technical Specifications

Processor

Processor Support

- Intel® Core™2 Quad** and Intel® Core™2 Duo processors in the LGA775 package
- Supports Intel® 64 Architecture⁴

Chipset

Intel® G33 Express Chipset

- Intel® LE82G33 Graphics Memory Controller Hub (GMCH)
- Intel® NH82801H I/O Controller Hub (ICH9DH)
- 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 3100 with Intel® Clear Video Technology

Intel® I/O Controller Hub

- Ultra ATA 100 / 66 devices
- Four SATA (3.0 Gb/s) ports
- Intel® PRO 10 / 100 / 1000 network connection

USB 2.0

Integrated Intel® ICH9DH controllers:

- Six back-panel ports (three dual-stack)
- Six additional ports (via three 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® 82566 Gigabit Network Connections

- High quality and reliability with Intel's world-class manufacturing and validation
- Supports Intel® Viiv™ Processor Technology-based software and applications for simple network setup and content sharing

Expansion Capabilities

- Two PCI bus add-in card connectors
- One PCI Express* x1 bus add-in card connector
- One PCI Express* x16 graphics connector

Jumpers and Front-Panel Connectors

Jumpers

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

Front-Panel Connectors

- Reset, HD LED, Power LEDs, power on/off
- Three 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 (such as PCI and PCI Express*) require physical memory address locations that reduce available memory addresses above 7 GB. This may result in less than 8 GB of memory being available to the operating system and applications.

² Intel® Viiv™ processor technology platforms require a computer system with a processor, chipset, BIOS, enabling software and/or operating system, device drivers, and applications designed for these features. Home networking capability and many Intel Viiv processor technology-based usage models will require additional hardware devices, software, or services. System and component performance and functionality will vary depending on your specific hardware and software configurations. See www.intel.com/go/viiv_info for more information.

³ Remote may be sold separately.

⁴ 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 1066 MHz System Bus. For information, visit www.intel.com/go/findCPU

