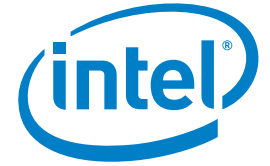


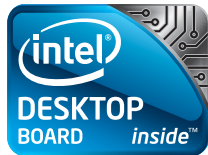
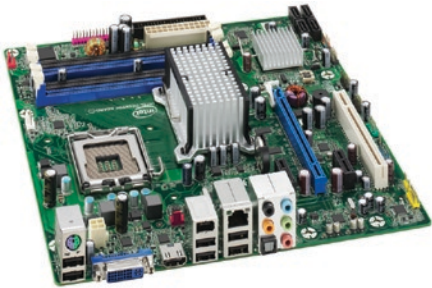
PRODUCT BRIEF

Intel® Desktop Board DG43RK  
Classic Series



MicroATX Form Factor

# Intel® Desktop Board DG43RK Classic Series



## Enhanced features provide an extraordinary computing experience.

The Intel® Desktop Board DG43RK is designed to support a wide range of processors based on the LGA775 package, including the Intel® Core™2 Quad\*\* and Intel® Core™2 Duo processors.

With enhanced DDR3 memory support for higher bandwidth and lower power, the Intel Desktop Board DG43RK brings you a greater computing experience.

## Make your PC your favorite spot for work and entertainment.

- Intel® Graphics Media Accelerator X4500 with Intel® Clear Video Technology.
- Supports DirectX\* 10, which enhances your gaming experience.
- Enjoy smoother high-definition video thanks to built-in hardware video decode acceleration (full hardware acceleration decode on MPEG-2 and partial on VC1 and AVC / H.264).
- HDMI\*1 and DVI-I graphics output with dual display capability.
- Great network connectivity with integrated 10/100/1000 Network Connection.
- Rich sound quality of Intel® High Definition Audio<sup>2</sup> with 7.1-channel surround sound and 2-channel multistreaming.
- Microsoft\* Windows\* 7 Premium and Windows Vista\* Premium WHQL certified.



## Intel® Desktop Board DG43RK Classic Series

### The boxed Intel® Desktop Board DG43RK solution includes:

- ATX 2.2 compliant I/O shield
- SATA and ATA 100 / 66 cables
- DVI to VGA adapter—offering the option to select digital or analog display devices as the video output
- Board and back panel I/O layout stickers
- Quick reference guide
- Intel® Express Installer driver and software DVD
- Microsoft\* Windows\* 7 Premium and Windows Vista\* Premium WHQL certified

### The takeaway software included with the Intel® Desktop Board DG43RK works best for your everyday computing.

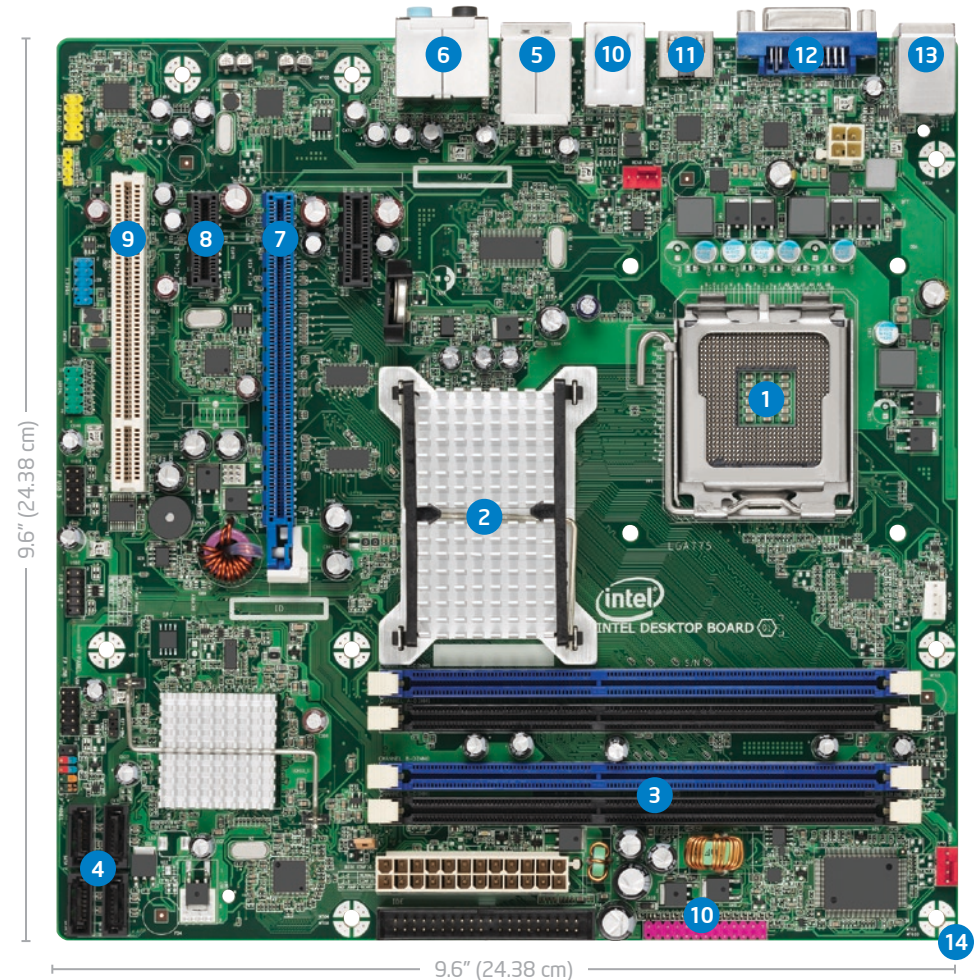
| CAPABILITY    | SOFTWARE INCLUDED:   |
|---------------|--|
| Productivity  | ▪ Intel® Integrator Assistant (Internet Download)<br>▪ Laplink* PCmover* Express |
| Entertainment | ▪ DivX* for Windows*   |
| Antivirus     | ▪ Norton Internet Security*  |

# Intel® Desktop Board DG43RK Classic Series

## Features and Benefits



- 1 Supports 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® G43 Express Chipset featuring Intel® Graphics Media Accelerator X4500**
- 3 Dual-Channel DDR3 with four connectors for 1333<sup>3,4</sup> / 1066 / 800 MHz memory support (8 GB<sup>5</sup> max):** Four DIMM connectors designed to support the latest DDR3 technology.
- 4 Four SATA ports (3.0 Gb/s):** Facilitate high-speed storage and data transfers at up to 3.0 Gb/s for each of four ports.
- 5 Integrated 10/100/1000 Network Connection**
- 6 Ten-channel Intel® High Definition Audio<sup>2</sup>:** Audio subsystem with five analog audio outputs and one optical S/PDIF digital audio output (7.1 + 2 independent multistreaming).
- 7 PCI Express\* 2.0 x16 graphics connector:** Delivers up to 8 GB/s bandwidth.
- 8 Two PCI Express\* x1 connectors**
- 9 One PCI connector**
- 10 Twelve Hi-Speed USB 2.0 ports:** Six back panel ports and six additional ports via three internal headers.
- 11 HDMI\*1 1080p output support**
- 12 DVI-I:** Built-in HDCP support enables viewing of protected HD Video multimedia content.
- 13 PS/2:** Supports keyboard or mouse.
- 14 MicroATX form factor**



# Intel® Desktop Board DG43RK Classic Series

## 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® processor in the LGA775 package
- Intel® Celeron® processor in the LGA775 package
- Supports Intel® 64 architecture<sup>5</sup>

### CHIPSET

#### Intel® G43 Express Chipset

- Intel® 82G43 Graphics and Memory Controller Hub (GMCH)
- Intel® 82801JB I/O Controller Hub (ICH10)
- Intel® Fast Memory Access
- Intel® Graphics Media Accelerator X4500 with Intel® Clear Video Technology

#### Intel® I/O Controller Hub (ICH)

- Four SATA (3.0 Gb/s) ports
- Integrated 10/100/1000 Network Connection
- Twelve Hi-Speed USB 2.0 ports (six back panel ports and six additional ports via three internal headers)

### System BIOS

- 16 Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI Plug and Play, IDE drive auto-configure
- Advanced configuration and power interface V2.0b, DMI 2.0, multilingual support
- Serial Peripheral Interface (SPI) Flash

### SYSTEM MEMORY

#### Memory Capacity

- Four 240-pin DIMM connectors supporting up to four double-sided DIMMs (8 GB<sup>3</sup> max)

#### Memory Types

- DDR3 1333<sup>3,4</sup> / 1066 / 800 SDRAM memory support
- Non-ECC Memory

#### Memory Modes

- Dual- or single-channel operation support

#### Memory Voltage

- 1.35 V to 1.65 V

#### 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

#### Expansion Capabilities

- One PCI bus add-in card connector
- Two PCI Express\* x1 bus add-in card connectors
- One PCI Express 2.0 x16 graphics connector
- Parallel ATA 100 / 66 for up to two devices

#### Headers

- One serial port header
- One parallel port header
- One 1394a header

#### Audio

- Ten-channel Intel® High Definition Audio<sup>2</sup> codec

For ordering information, visit [www.intel.com](http://www.intel.com)

For the most current product information, visit <http://developer.intel.com/products/desktop/motherboard/>

### 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
- Front-panel Hi-Speed USB 2.0 headers
- Front-panel audio header

### MECHANICAL

#### Board Style

- MicroATX 2.2-compliant

#### Board Size

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

#### Baseboard Power Requirements

- ATX 12 V

### ENVIRONMENT

#### Operating Temperature

- 0° C to +55° C

#### Storage Temperature

- -20° 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

#### International

- IEC 60950-1

#### 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 and EN 55024

#### Australia / New Zealand

- EN 55022 Class B

#### Japan

- VCCI V-3, V-4 Class B

#### South Korea

- KN-22 and KN-24

#### Taiwan

- CNS 13438 Class B

#### International

- CISPR 22 Class B

### Environmental Compliance

#### Europe

- Europe RoHS (Directive 2002 / 95 / EC)

#### China

- China RoHS (MII Order # 39)

<sup>1</sup> Requires the use of a processor with Intel® HD Graphics.

<sup>2</sup> Intel® High Definition Audio requires a system with an appropriate Intel® chipset and a motherboard with an appropriate codec and the necessary drivers installed. System sound quality will vary depending on actual implementation, controller, codec, drivers, and speakers. For more information about Intel® HD Audio, refer to [www.intel.com/design/chipsets/hdaudio.htm](http://www.intel.com/design/chipsets/hdaudio.htm)

<sup>3</sup> DDR3 1333 is supported through overclocking in BIOS.

<sup>4</sup> WARNING: Altering PC memory frequency, voltage and/or latency may: (i) reduce system stability and useful life of the system, memory and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warranty, the operation of the memory beyond its specifications. Intel assumes no responsibility that the memory, including if used with altered clock frequencies and/or voltages, will be fit for any particular purpose. Check with memory manufacturer for warranty and additional details.

<sup>5</sup> 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 1 GB or more of physical addressable memory being available to the operating system and applications, depending on the system configuration and operating system.

<sup>6</sup> 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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Actual Intel® Desktop Board may differ from the image shown.

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\* Other names and brands may be claimed as the property of others.

\*\* Supports 95 W Thermal Design Power, Intel® Core™2 Quad Processors with 1333 / 1066 MHz system bus. For information, visit <http://processormatch.intel.com>

