



MicroATX Form Factor

## Intel® Desktop Board D945GCPE Essential Series

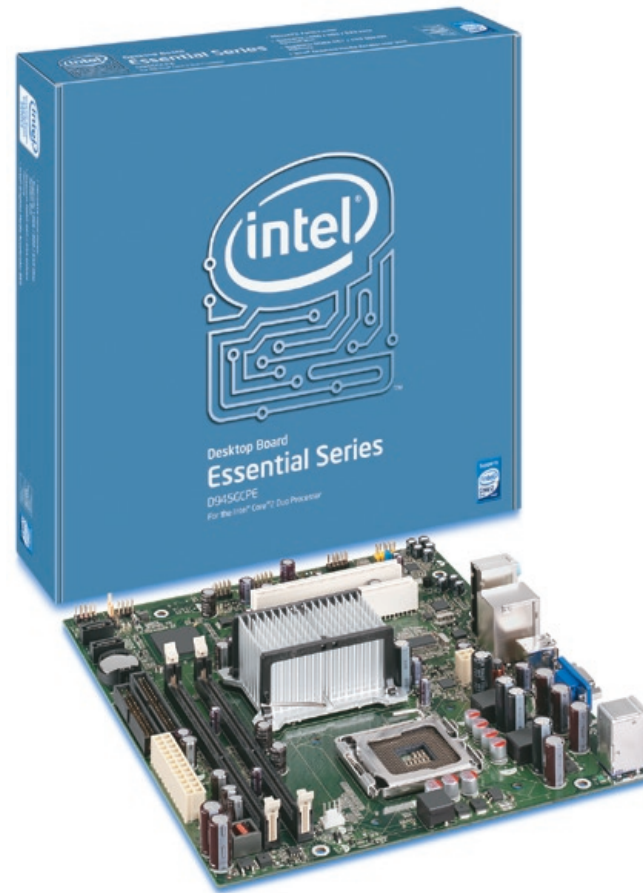
Essential technology for your everyday computing needs.

### Delivering Value and Quality

The Intel® Desktop Board D945GCPE Essential Series delivers a flexible graphics solution with support for the Intel® Core™2 Duo, Intel® Pentium® Dual-Core, Intel® Pentium® D, Intel® Pentium® 4, Intel® Celeron® 400 Sequence, and Intel® Celeron® D processors in the LGA775 package. Designed with a focus on minimizing overall platform cost, this desktop board features the Intel® 945GC chipset with integrated Intel® Graphics Media Accelerator 950. Other features of this desktop board include support for up to 2 GB<sup>1</sup> of dual-channel DDR2 667 / 533 SDRAM memory, an on-board 10/100 LAN Network Connection, and 4-channel high definition audio. As you have come to expect, this product delivers the stability and reliability associated with all Intel® desktop boards.



# Intel® Desktop Board D945GCE



## The Boxed Intel® Desktop Board D945GCE 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 Guide
- Intel® Express Installer Driver and Software CD
- Windows Vista\* Premium WHQL certified

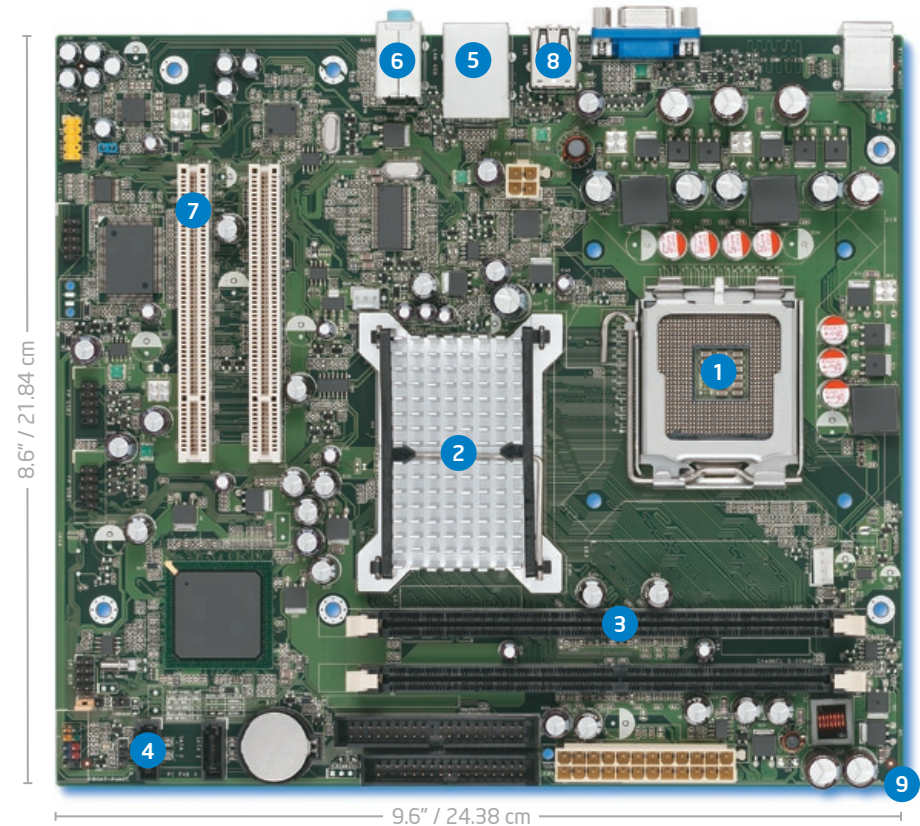
## Software Included:

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

## Features and Benefits

# Intel® Desktop Board D945GCPE

- 1 Support for the Intel® Core™2 Duo, Intel® Pentium® Dual-Core, Intel® Pentium® D, Intel® Pentium® 4, Intel® Celeron® 400 Sequence, and Intel® Celeron® D processors in the LGA775 package:** Features support for dual-core processing and 1066 / 800 / 533 MHz system bus. Supports boxed Intel processors with packaging indicated by 06 and 05A.
- 2 Intel® 945GC chipset featuring Intel® Graphics Media Accelerator 950:** Low-cost, performance graphics solution.
- 3 Dual-Channel DDR2 667 / 533 SDRAM support:** Two DIMM sockets designed to support up to 2 GB<sup>1</sup> of DDR2 667 / 533 SDRAM memory. Flexible support for either single- or dual-channel operation.
- 4 Two SATA ports:** Facilitates high-speed storage and data transfers at up to 3.0 Gb/s for each of two ports.
- 5 Integrated 10/100 LAN:** Onboard 10/100 Mb/s Ethernet LAN connectivity.
- 6 High Definition Audio:** Integrated 4-channel audio providing audio performance at an excellent value.
- 7 PCI slots:** Two expansion slots for custom system configurations and future add-in card upgrades.
- 8 Support up to 8 Hi-Speed USB 2.0 ports:** Four back panel ports and two front panel headers supporting four additional USB 2.0 ports.
- 9 MicroATX Form Factor**



## Technical Specifications

### Processor

#### Processor Support

- Intel® Core™2 Duo processor in the LGA775 package
- Intel® Pentium® Dual-Core processor in the LGA775 package
- Intel® Pentium® D processor in the LGA775 package
- Intel® Pentium® 4 processor in the LGA775 package
- Intel® Celeron® 400 Sequence processor in the LGA775 package
- Intel® Celeron® D processor in the LGA775 package
- Supports Intel® 64 Architecture<sup>1</sup>

#### Intel® 945GC Express Chipset

- Intel® 945GC Express Chipset Graphics and Memory Controller Hub
- Intel® 82801 GB I/O Controller Hub (ICH7)
- Serial Peripheral Interface (SPI) Flash or Firmware Hub (FWH)

#### Memory Controller Hub (MCH)

- Designed to support up to 2 GB of system memory using DDR2 667 / 533 SDRAM memory

#### Intel® ICH7 I/O Controller Hub

- One Ultra ATA 100/66 Connector for two devices
- One Floppy Connector
- Two SATA (3.0 Gb/s) ports
- RealTek® 10/100 Network Connection
- Two PCI local bus slots

#### Integrated Intel® ICH7 controllers

- Four back-panel ports (two dual stack)
- Four additional ports (via two headers)

#### Firmware Hub

##### System BIOS

- 4 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

##### System Memory

###### Memory Capacity

- Two 240-pin DIMM connectors supporting up to two double-sided DIMMs

###### Memory Types

- DDR2 667 / 533 SDRAM memory support
- Non-ECC Memory

###### Memory Modes

- Dual-channel operation support

###### Memory Voltage

- 1.8V

###### Hardware Management

- 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 2.0

###### Expansion Capabilities

- Two PCI bus add-in card connectors

#### 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
- One alternate power LED header (1x3)
- Two front-panel Hi-Speed USB 2.0 headers
- Front-panel audio header

##### Mechanical

###### Board Style

- ATX 2.2 compliant

###### Board Size

- 9.6" x 8.6" (24.38 cm x 21.84 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](http://www.intel.com)**

**For the most current product information, visit [developer.intel.com/design/motherbd/](http://developer.intel.com/design/motherbd/)**

**For ENERGY STAR<sup>®</sup> recommended configurations, visit [www.intel.com/go/energystar](http://www.intel.com/go/energystar)**

<sup>1</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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