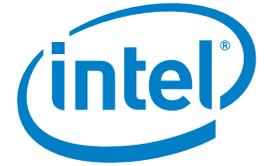


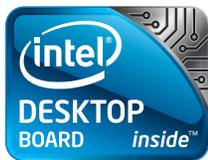
## PRODUCT BRIEF

Intel® Desktop Board DH61BE  
Classic Series



MicroATX Form Factor

# Intel® Desktop Board DH61BE Classic Series



## Supports 2nd generation Intel® Core™ processors in the LGA1155 package

The Intel® Desktop Board DH61BE is based on the Intel® H61 Express Chipset and supports 2nd generation Intel® Core™ processors, including Intel® Core™ i7 and Intel® Core™ i5 processors and other Intel® processors in the LGA1155 package. The 2nd generation Intel Core processors feature optimized Intel® Turbo Boost Technology<sup>1</sup> 2.0 and enhanced Intel® Hyper-Threading Technology<sup>2</sup>, which provide smarter performance and a seamless visual experience.

## Dual independent display for processors with Intel® HD Graphics

The Intel Desktop Board DH61BE is equipped with DVI-D and VGA ports to support flexible, dual independent display for processors with Intel® HD Graphics. Powered by the 2nd generation Intel Core processors with Intel HD Graphics, the Intel Desktop Board DH61BE delivers superb visual performance for sharper images, richer color, and lifelike video.

## Premium features

The Intel Desktop Board DH61BE offers premium features such as Intel® High Definition Audio<sup>3</sup> with 7.1 surround sound and multi-streaming capability and an integrated Intel® PRO 10/100/1000 Network Connection in a low-power design.

The Intel Desktop Board DH61BE is designed to support a wide range of memory voltage from 1.2 V to 1.8 V to maximize memory DIMM compatibility.

Two onboard SATA Revision 3.0 ports promise a new level of performance with 6.0 Gb/s link speed between storage devices and the host.

Two back panel SuperSpeed USB 3.0 ports address the needs of higher performance connections between the PC and increasingly sophisticated peripherals by offering a higher transfer rate of 5.0 Gb/s.

Legacy features such as PCI connectors, a parallel port, and a PS/2 port are also supported for backward compatibility with peripherals.



## Intel® Desktop Board DH61BE Classic Series

### The boxed Intel® Desktop Board DH61BE solution includes:

- ATX 2.2 compliant I/O shield
- SATA cables
- Board and back panel I/O layout stickers
- Quick reference guide
- Intel® Express Installer driver and software DVD

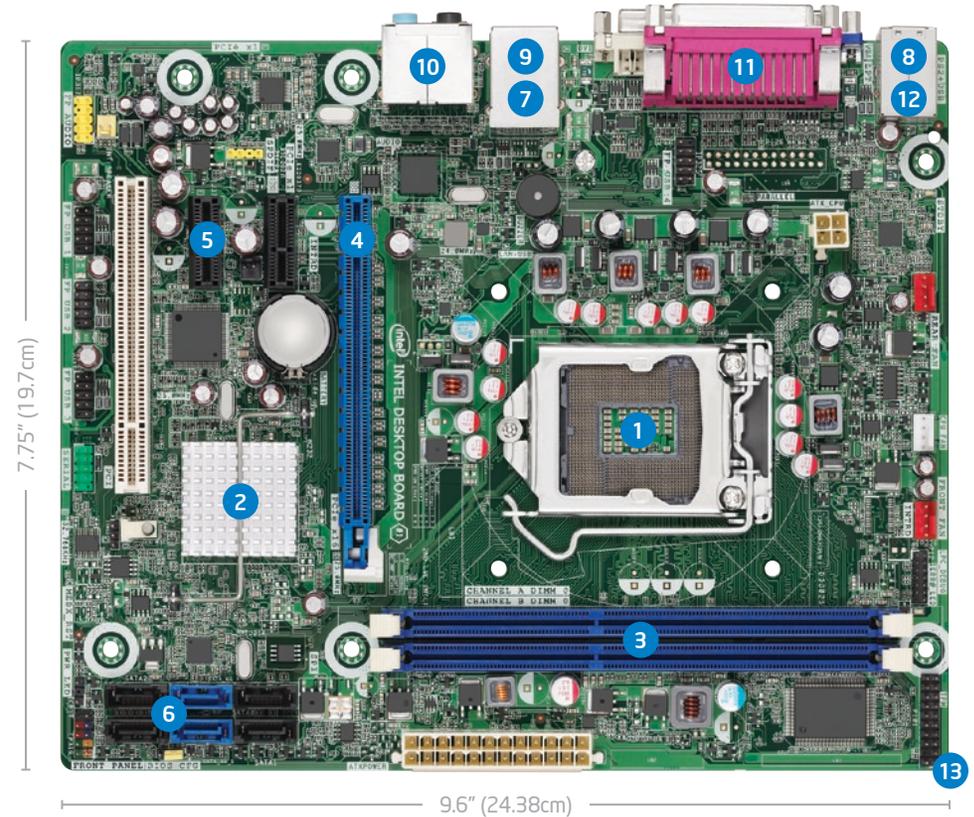
### Software included:

| CAPABILITY   | SOFTWARE INCLUDED:  |
|--------------|---|
| Utilities    | <ul style="list-style-type: none"><li>▪ Intel® Core Utilities Bundle<sup>4</sup></li><li>▪ Intel® Desktop Utilities</li></ul> |
| Productivity | <ul style="list-style-type: none"><li>▪ Laplink* PCmover Express*</li></ul>   |
| Antivirus    | <ul style="list-style-type: none"><li>▪ ESET* Smart Security 4 (1-year license)</li></ul>                                     |

# Intel® Desktop Board DH61BE Classic Series

## Features and Benefits

- 1 Supports 2nd generation Intel® Core™ processors, including Intel® Core™ i7 and Intel® Core™ i5 processors and other Intel® processors in the LGA1155 package for exceptional performance
- 2 Intel® H61 Express Chipset PCH
- 3 Dual-channel DDR3 with two connectors for 1333 / 1066 / 800 MHz memory support (8 GB<sup>5</sup> max): Supports 1.2 V to 1.8 V memory voltage control for maximum DIMM compatibility.
- 4 One PCI Express\* 2.0 x16 graphics connector: Delivers up to 8 GB/s bandwidth.
- 5 Two PCI Express 2.0 x1 connectors and one PCI connector
- 6 Two SATA 6.0 Gb/s ports and four SATA 3.0 Gb/s ports
- 7 Two SuperSpeed USB 3.0 ports: 5.0 Gb/s signaling rate for high-speed connections to peripherals.
- 8 Ten USB 2.0 ports: Two back panel ports and eight additional ports via internal headers.
- 9 Integrated Intel® PRO 10/100/1000 Network Connection
- 10 Eight-channel Intel® High Definition Audio<sup>3</sup>: Features five stack analog audio ports, one optical S/PDIF out port, and front panel audio header.
- 11 DVI-D and VGA ports: Dual independent display capability for multiple display support.
- 12 PS/2 port: Supports keyboard or mouse.
- 13 MicroATX form factor



# Intel® Desktop Board DH61BE Classic Series

## Technical Specifications

### PROCESSOR

#### Processor Support

- Intel® Core™ i7 and Intel® Core™ i5 processors and other Intel® processors in the LGA1155 package
- Supports Intel® 64 architecture<sup>5</sup>

### CHIPSET

#### Intel® H61 Express Chipset

- Intel® 82H61 Platform Controller Hub (PCH)

#### Peripheral Connectivity

- Two SATA 6.0 Gb/s ports
- Four SATA 3.0 Gb/s ports
- Two SuperSpeed USB 3.0 ports with 5.0 Gb/s link speed
- Ten Hi-Speed USB 2.0 ports (two back panel ports and eight additional ports via internal headers)
- Parallel port

#### System BIOS

- 32 Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI Plug and Play
- Advanced configuration and power interface V3.0b, SMBIOS2.5
- Intel® Express BIOS update support

#### Hardware Management Features

- Processor fan speed control
- System chassis fan speed control
- Voltage and temperature sensing
- Fan sensor inputs used to monitor fan activity
- ACPI-compliant power management control

#### Intel® PRO 10/100/1000 Network Connection

- Low-power design

### Expansion Capabilities

- One PCI Express\* 2.0 x16 graphics connector
- Two PCI Express 2.0 x1 connectors
- One PCI connector

### Headers

- One serial port header
- S/PDIF audio header

### Audio

- 7.1 multi-streaming Intel® High Definition Audio<sup>3</sup>
- Five stack analog audio ports and one optical S/PDIF out port

### SYSTEM MEMORY

#### Memory Capacity

- Two 240-pin DIMM connectors supporting up to two double-sided DIMMs (8 GB<sup>5</sup> max)

#### Memory Types

- DDR3 1333 / 1066 / 800 SDRAM memory support
- Non-ECC Memory

#### Memory Modes

- Dual- or single-channel operation support

#### Memory Voltage

- Memory voltage control from 1.2 V to 1.8 V
- 1.5 V standard JEDEC voltage

### JUMPERS AND FRONT-PANEL CONNECTORS

#### Jumpers

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

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/>

### 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 7.75" (24.38cm x 19.7cm)

#### 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

- 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)

#### United States

- FCC Part 15, Class B
- 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.



**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.

<sup>1</sup> Intel® Turbo Boost Technology 2.0 requires a PC with a processor with Intel Turbo Boost Technology 2.0 capability. Intel Turbo Boost Technology 2.0 performance varies depending on hardware, software, and overall system configuration. Check with your PC manufacturer on whether your system delivers Intel Turbo Boost Technology. See [www.intel.com/technology/turboboost](http://www.intel.com/technology/turboboost) for more information.

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

<sup>3</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/haudio.htm](http://www.intel.com/design/chipsets/haudio.htm)

<sup>4</sup> The Intel® Core Utilities bundle includes Intel® Integrator Assistant, Intel® Integrator Toolkit, Intel® Express Installer and Intel® Express Bios Update.

<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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