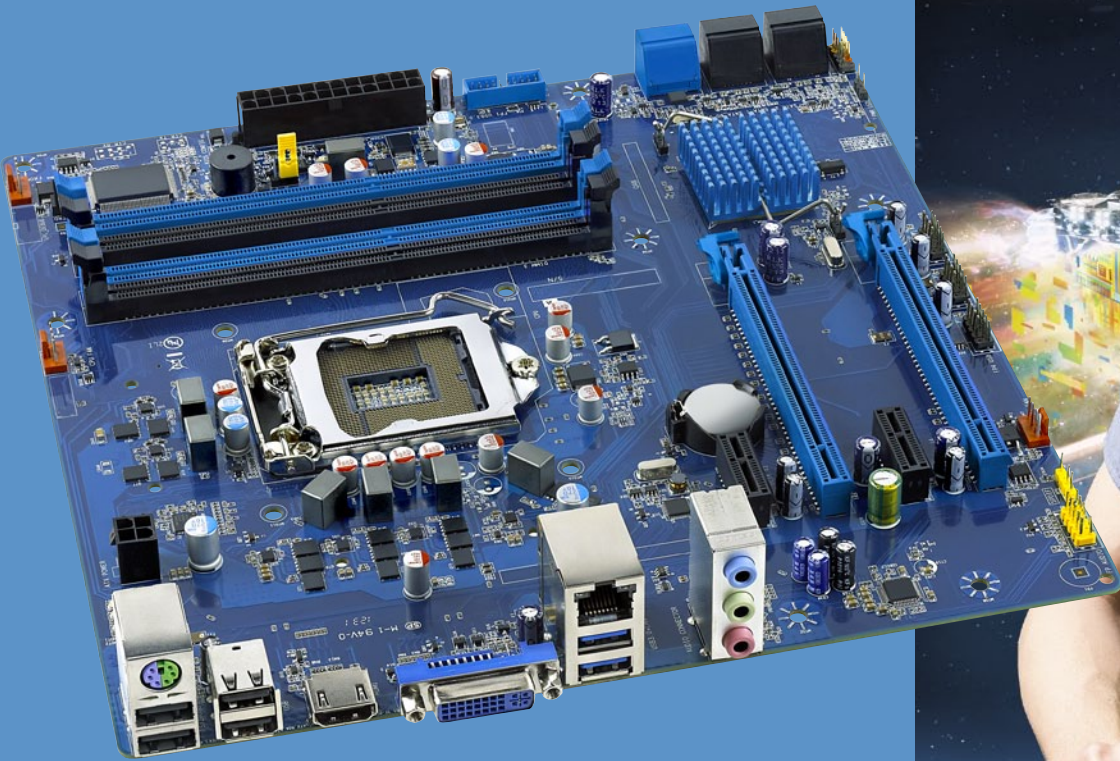


# Intel® Desktop Board DZ75ML-45K

Optimized for Intel® -K Processors

microATX Form Factor



PRODUCT BRIEF

# Intel® Desktop Board DZ75ML-45K

## Optimized for Intel® -K Processors!

Introducing the Intel® Desktop Board DZ75ML-45K. Optimized for Intel® -K processors and equipped with full capability Intel® Visual BIOS for maximum overclocking performance and best experience.

### Supports the 2<sup>nd</sup> and 3<sup>rd</sup> generation Intel® Core™ processors in the LGA1155 package

Once again with the introduction of the Intel® Desktop Board DZ75ML-45K Intel is offering a great board at a very attractive price point for gamers and overclockers. In combination with the new Intel® Visual BIOS, this board will surely satisfy all of the needs of the performance enthusiasts. As a member of the newly introduced -K Series Intel® Desktop Boards, the DZ75ML-45K is optimized to take full advantage of the Intel® -K processors. Combination of very sophisticated power delivery design and ease of performance tuning and overclocking of the Core, Graphics, and memory offered by the Intel® Visual BIOS make the DZ75ML-45K an ideal board for the Intel® -K processors. Intel® -K Series Desktop Board PLUS Intel® -K processor EQUALS performance.

### INTEL® VISUAL BIOS Advanced Overclocking

The new Intel® Visual BIOS offers graphical interface and animated controls which allow you to configure settings faster and take full advantage of your Intel® -K processors. Intel® Visual BIOS allows easy overclocking of Core, Graphics, and Memory. Intel Visual BIOS operates by your choice of touch screen, keys, or mouse. All controls are literally at your fingertips, in a format you can visualize. When your quest for ultimate performance takes you to extremes, choose the Intel® Desktop Board DZ75ML-45K here and Intel® Visual BIOS.

### Power and Responsiveness for the Hottest New Games

The advanced power and overclocking<sup>1</sup> capabilities of the DZ75ML-45K board coupled with other significant technologies such as Intel® Fast Boot technology and Intel® Power Supervisor technology make this the board of choice for cost conscious gamers and media creation enthusiasts alike. Intel® Fast Boot Technology reduces system boot times to mere seconds while the Intel® Power Supervisor technology actively monitors the system power to ensure system protection. Other premium features include GPU Virtualization Software with Lucid\* MVP, HDMI and DVI-I video connectors, one PCIe\* 3.0 x16 connector for external graphics and a second PCIe x16 (x4 electrical) to support CrossFireX\* dual graphics.



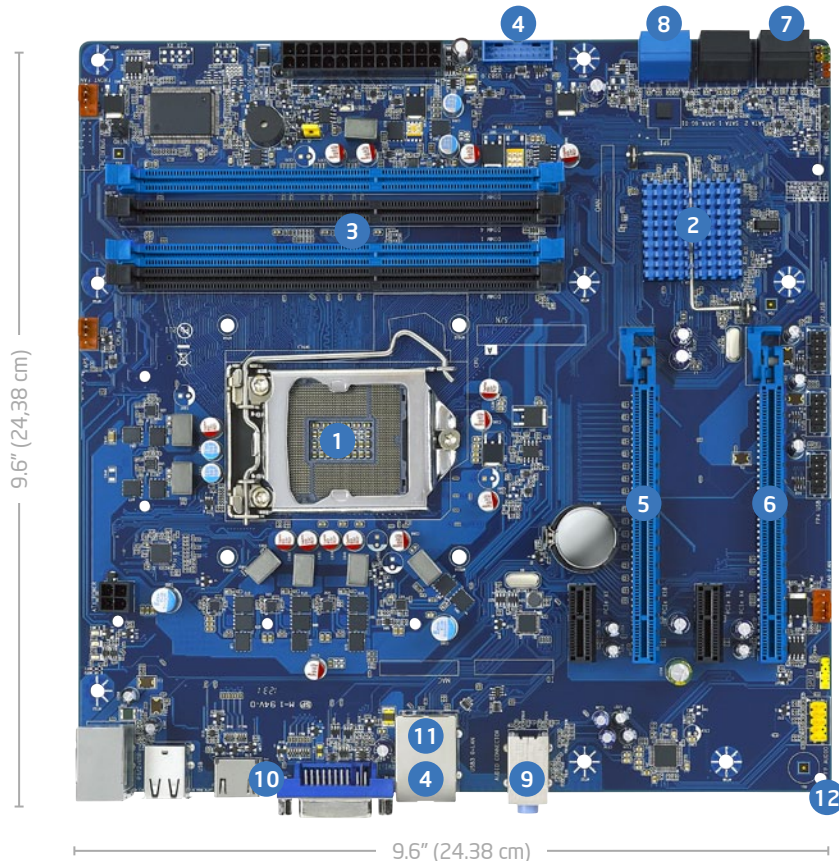
### DZ75ML-45K solution includes:

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

| Capability         | Software included  |
|--------------------|--|
| Utilities          | <ul style="list-style-type: none"> <li>• Intel® Integrator Tool Kit</li> <li>• Intel® Desktop Utilities</li> </ul> |
| Productivity       | <ul style="list-style-type: none"> <li>• Splashtop* Remote Desktop</li> </ul>                                      |
| Antivirus          | <ul style="list-style-type: none"> <li>• McAfee* Antivirus Plus</li> </ul>   |
| GPU Virtualization | <ul style="list-style-type: none"> <li>• Lucid* Virtu MVP Software</li> </ul>                                      |

# Intel® Desktop Board DZ75ML-45K

## Features and Benefits



- 1 Support for the Intel® Core™ i7 processor in the LGA 1155 package. Optimized for the Intel® -K Processors. Features Intel® Turbo Boost Technology<sup>2</sup>, Intel® Hyper-Threading Technology<sup>3</sup> for exceptional performance and scalability.
- 2 Intel® Z75 Express Chipset: Features Overclocking<sup>1</sup> Support.
- 3 Four DIMM slots: Designed to support overclocked<sup>1</sup> DDR3 2400MHz + O.C.<sup>4</sup> memory, delivering up to 32 GB/s memory bandwidth.
- 4 Four Super-Speed USB 3.0 ports (2 external, 2 via internal header), ten USB 2.0 ports (4 external, 6 via internal headers).
- 5 PCI Express 3.0\* x16 slot.
- 6 PCI Express\* x16 (x4 electrical) and 2 PCI Express\* x1 connectors.
- 7 Two SATA 6.0 Gb/s ports, four SATA 3.0 Gb/s ports.
- 8 Intel® Rapid Storage Technology: Performance and reliability with support for RAID 0, 1, 5, 10.
- 9 8 Channel (5.1+2) Intel® High Definition Audio<sup>5</sup> Enables high-quality integrated audio that rivals the performance of high-end discrete solutions.
- 10 HDMI\* and DVI-I Video Connectors.
- 11 Intel® Gigabit Ethernet LAN: Features onboard 10/100/1000 Mb/s Ethernet LAN connectivity.
- 12 microATX (9.6" × 9.6") Form Factor.



**OPTIMIZED FOR INTEL®-K PROCESSORS**  
Intel® Desktop Board optimized for Intel® -K processors for maximum overclocking<sup>1</sup> performance and best experience.



**INTEL® FAST BOOT TECHNOLOGY**  
Go from system off to Windows\* in mere seconds.



**POWER SUPERVISOR**  
Active monitoring of power ensures system protection.

# Intel® Desktop Board DZ75ML-45K

## Technical Specifications



### PROCESSOR

#### Processor Support

- Optimized for Intel® -K processors. Supports 2<sup>nd</sup> and 3<sup>rd</sup> Generation Intel® Core™, and other Intel® processors in the LGA1155 package

### CHIPSET

#### Intel® Z75 Express Chipset

- Intel® Z75 PCH
- Intel® Rapid Storage Manager (RAID 0, 1, 5, 10)

### PERIPHERAL CONNECTIVITY

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

### SYSTEM BIOS

- 64 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
- Front and rear system chassis fan speed control
- Voltage and temperature sensing
- Fan sensor inputs used to monitor fan activity
- ACPI-compliant power management support

### INTEL® PRO 10/100/1000 NETWORK CONNECTION

- Low-power design

### EXPANSION CAPABILITIES

- One PCI Express® 3.0 x16 connector
- One PCI Express® 2.0 x16 connector (x4 Electrical)
- Two PCI Express® 2.0 x1 connector

### AUDIO

- 5.1 + 2 Intel® High Definition Audio<sup>5</sup>
- Three stack analog audio ports plus internal S/PDIF headers

### VIDEO

- HDMI\* and DVI-I Video connectors for Intel® processors with Intel® HD Graphics

### SYSTEM MEMORY

#### Memory Capacity

- Four 240-pin DIMM connectors supporting up to four double-sided DIMMs
- Maximum system memory up to 32 GB<sup>6</sup> using 8 GB double-sided DIMMs

#### Memory Types

- DDR3 2400MHz + O.C. SDRAM memory support
- Non-ECC Memory
- 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

- Jumper access for BIOS maintenance mode

#### Front Panel Connectors

- Reset, HD LED, Power LEDs, power on/off
- Front-panel audio header

#### Other Connectors

- Chassis intrusion detect header

### MECHANICAL

#### Board Style

- microATX

#### 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

- UL 60950-1

#### Canada

- CAN/CSA-C22.2 No. 60950-1

#### Europe

- (Low Voltage Directive 2006/95/EC)

- EN 60950-1

#### International

- IEC 60950-1

### EMC REGULATIONS (CLASS B)

#### United States

- FCC CFR Title 47, Chapter I, Part 15, Subparts A/B

#### Canada

- ICES-003

#### Europe

- (EMC Directive 2004/108/EC)

- EN 55022 and EN 55024

#### Australia/New Zealand

- EN 55022

#### Japan

- VCCI V-3, V-4

#### South Korea

- KN-22 and KN-24

#### Taiwan

- CNS 13438

#### International

- CISPR 22

### ENVIRONMENTAL COMPLIANCE

#### Europe

- Europe RoHS (Directive 2002/95/EC)

- WEEE (Directive 2002/96/EC)

#### China

- China RoHS

1 Warning: Altering clock frequency and/or voltage may (i) reduce system stability and useful life of the system and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional damage; and (v) affect system data integrity. Intel has not tested, and does not warrant, the operation of the processor beyond its specifications.

2 Intel® Turbo Boost Technology requires a PC with a processor with Intel Turbo Boost Technology capability. Intel Turbo Boost Technology 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.

3 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. For more information including details on which processors support HT Technology, see [www.intel.com/info/hyperthreading](http://www.intel.com/info/hyperthreading).

4 Maximum peak memory bandwidth requires four DDR 3 modules to be populated in each of the blue memory slots. DDR 3 2400 memory support on this motherboard requires advanced knowledge of BIOS and memory tuning; individual results may vary. For specific supported memory for this motherboard, please visit [www.intel.com/products/motherboard/](http://www.intel.com/products/motherboard/) for more details.

5 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/ndaudio.html](http://www.intel.com/design/chipsets/ndaudio.html).

6 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.

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Actual Intel® Desktop Board may differ from the image shown.

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

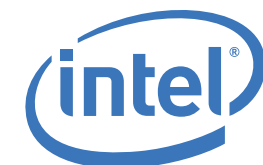
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