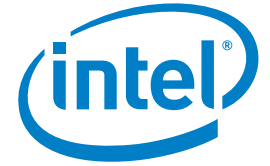


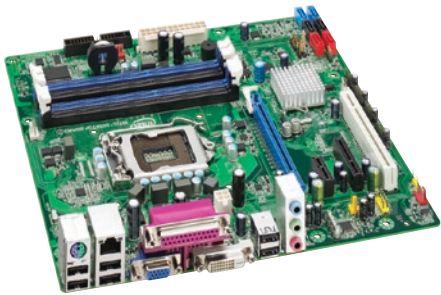
## PRODUCT BRIEF

Intel® Desktop Board DQ670W  
Executive Series



MicroATX Form Factor

# Intel® Desktop Board DQ670W Executive Series



### Solution for the Legacy Peripherals

Introducing the Intel® Desktop Board DQ670W, supporting the 2nd gen Intel® Core™ vPro™ processors in the latest LGA1155 package. Based on the Intel® Q67 Express Chipset, this desktop board delivers the newest PC manageability platform with Intel® Active Management Technology<sup>1</sup> 7.0, together with multiple legacy connectivity options, including a parallel port, PS/2 port, and a floppy header. With up to 32 GB<sup>2</sup> DDR3 1333 / 1066 MHz memory support and six onboard SATA ports including two SATA 6.0 Gb/s ports, the Intel Desktop Board DQ670W delivers remarkable expansion possibilities for both legacy and the latest peripherals.

### Seamless PC Remote Manageability

The Intel Desktop Board DQ670W is equipped with improved KVM Remote Control manageability, enabling remote access and control of a PC, even when the PC is in OOB (out-of-band) state. Desk-side troubleshooting is greatly reduced with KVM Remote Control, saving both time and money.

### Data Security Features

Protect sensitive office data with RAID built into the Intel Q67 Express Chipset, with multiple configurations to support RAID 0, 1, 5, and 10. Encryption and signature keys are protected from software-based attacks with onboard Trusted Platform Module (TPM).<sup>3</sup> Also included with the Intel Desktop

Board DQ670W is the award-winning anti-virus software ESET® Smart Security 4 with a one-year license.

### Multiple Operating System Certifications

The Intel Desktop Board DQ670W is certified with the following operating systems: Windows® 7, Windows Vista® Premium, openSUSE®, and RedHat® Linux®.



## Intel® Desktop Board DQ670W Executive Series

### The boxed Intel® Desktop Board DQ670W 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

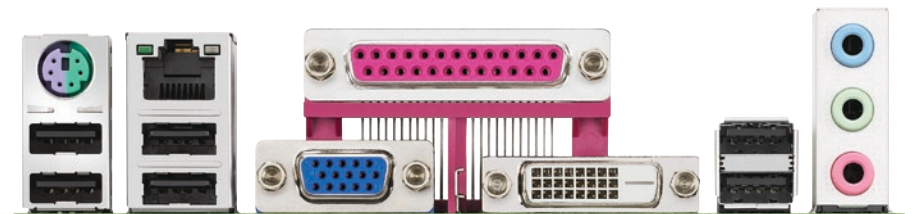
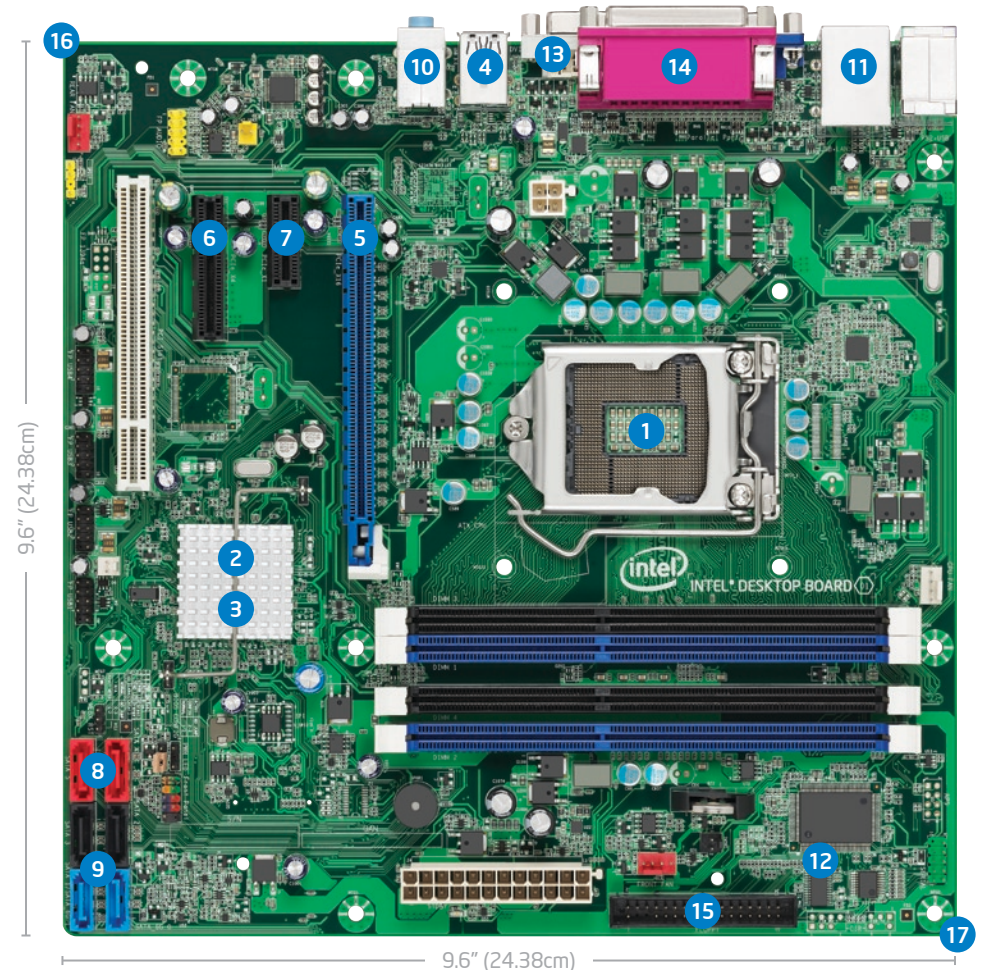
### Software included:

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>
Security	<ul style="list-style-type: none"><li>▪ ESET* Smart Security 4 (one-year license)</li><li>▪ Wave* EMBASSY* Security Center</li></ul>
Manageability	<ul style="list-style-type: none"><li>▪ RealVNC* Viewer Plus (Internet download)</li><li>▪ Spiceworks* IT Desktop</li></ul>
Productivity	<ul style="list-style-type: none"><li>▪ Laplink* PCmover* Professional</li></ul>

# Intel® Desktop Board DQ670W Executive Series

## Features and Benefits

- 1 Support for the Intel® Core™ i7 vPro™, Intel® Core™ i5 vPro™, and Intel® Core™ i3 processors in the LGA1155 package:** Features Intel® Turbo Boost Technology<sup>5</sup> and Intel® Hyper-Threading Technology<sup>6</sup> for exceptional performance and scalability.
- 2 Intel® Q67 Express Chipset**
- 3 Integrated Memory Controller (IMC):** Four connectors designed to support up to 32 GB<sup>2</sup> dual-channel DDR3 1333 / 1066 MHz memory.
- 4 Fourteen USB 2.0 ports (six back panel ports and eight additional ports via internal headers)**
- 5 One PCI Express\* 2.0 x16 graphics connector**
- 6 One PCI Express 2.0 x4 connector**
- 7 One PCI Express 2.0 x1 connector and one PCI connector**
- 8 Four SATA 3.0 Gb/s ports with two ports compatible with eSATA extension**
- 9 Two SATA 6.0 Gb/s ports with Intel® Rapid Storage Technology: RAID 0, 1, 5, and 10.**
- 10 Eight-channel Intel® High Definition Audio<sup>7</sup> with multi-streaming capability:** Features internal S/PDIF out and front panel audio headers.
- 11 Intel® PRO 10/100/1000 Network Connection:** Uses a new low-power design to meet improved ENERGY STAR\* 5.0 specifications.
- 12 Trusted Platform Module (TPM)<sup>3</sup>:** Delivers encryption and signature keys protection.
- 13 Dual independent display: DVI-D + VGA graphics ports.<sup>8</sup>**
- 14 Legacy connectivity with PS/2 and parallel ports**
- 15 Floppy header**
- 16 Lead-free:** Meets all worldwide regulatory requirements for lead-free manufacturing.
- 17 MicroATX Form Factor:** MicroATX board supports smaller tower and system designs.



# Intel® Desktop Board DQ670W Executive Series

## Technical Specifications

### PROCESSOR

#### Processor Support

- 2nd gen Intel® Core™ i7 vPro™, Intel® Core™ i5 vPro™, and Intel® Core™ i3 processors in the LGA1155 package
- Intel® Turbo Boost Technology<sup>5</sup>
- Intel® Hyper-Threading Technology<sup>6</sup>
- Integrated Memory Controller with support for up to 32 GB<sup>2</sup> of system memory using DDR3 1333 / 1066 MHz
- Intel® Fast Memory Access
- Supports Intel® 64 Architecture<sup>9</sup>

### CHIPSET

#### Intel® Q67 Express Chipset

- Intel® 82Q67 Platform Controller Hub (PCH)
- Intel® Active Management Technology<sup>1</sup> 7.0
- Intel® Rapid Storage Technology (RAID 0, 1, 5, 10)

#### Integrated Intel® PCH Controllers

- Six Hi-Speed USB 2.0 ports
- Eight additional ports via internal headers
- Two SATA 6.0 Gb/s ports and four SATA 3.0 Gb/s ports

#### System BIOS

- 32 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 2.5
- 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
- Power management support for ACPI 1.0b

#### Intel® 82579LM ENERGY STAR\*-ready

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

- High quality and reliability with Intel's world-class manufacturing and validation
- New low-power design

#### Expansion Capabilities

- One PCI Express\* 2.0 x16 connector
- One PCI Express 2.0 x4 connector
- One PCI Express x1 connector
- One PCI connector

#### Audio

- Eight-channel Intel® High Definition Audio<sup>7</sup> with multi-streaming
- One front panel audio header
- One internal S/PDIF output header

### SYSTEM MEMORY

#### Memory Capacity

- Four 240-pin DIMM connectors supporting up to four double-sided DIMMs

#### Memory Types

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

#### 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

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>6</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. For more information including details on which processors support HT Technology, see [www.intel.com/info/hyperthreading](http://www.intel.com/info/hyperthreading).

<sup>7</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>8</sup> Requires the use of a processor with Intel® HD Graphics.

<sup>9</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

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

For the most current product information, visit [www.intel.com/go/idb](http://www.intel.com/go/idb) or <http://ark.intel.com>

For specific processor compatibility, visit <http://processormatch.intel.com>

#### Front-Panel Connectors

- Reset, HD LED, Power LEDs, power on/off
- Four front panel Hi-Speed USB 2.0 headers
- Front panel audio header

### MECHANICAL

#### Board Style

- MicroATX

#### Board Size

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

#### 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® Active Management Technology (Intel® AMT) requires the computer to have an Intel® AMT-enabled chipset, network hardware and software, connection with a power source, and a network connection.

<sup>2</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>3</sup> The original equipment manufacturer must provide TPM functionality, which requires a TPM-supported BIOS. TPM functionality must be initialized and may not be available in all countries.

<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> 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

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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