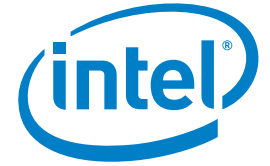


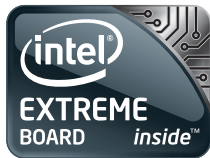
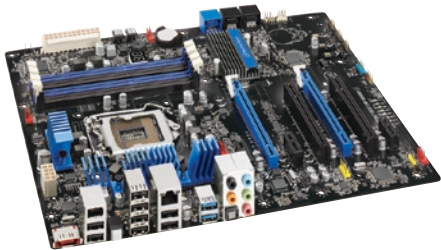
PRODUCT BRIEF

Intel® Desktop Board DP67BG
Extreme Series



ATX Form Factor

Intel® Desktop Board DP67BG Extreme Series



What gamers have been waiting for

When it comes to serious gaming, the Intel® Desktop Board DP67BG is packed with features that exceed any power user's expectations. With incredible support for up to eight threads of raw processing power, dual-channel DDR3 memory, and flexible support for ATI* CrossFireX* technology and NVIDIA* SLI* technology, the Intel Desktop Board DP67BG brings the best weapons to any application or game. The flexible graphics also make this board ideal for graphic-intensive applications.

Today's extreme gaming, digital photography, and video editing demand breakthrough technology. The Intel Desktop Board DP67BG supports the latest processors, and Intel's cutting-edge technology delivers even greater performance and power efficiency.

Don't just survive—thrive

The Intel Desktop Board DP67BG is built with the new Intel® P67 Express Chipset,

supporting Intel® Core™ i7 and Intel® Core™ i5 processors in the LGA1155 package. The revolutionary chip layout enables lower power consumption and more advanced performance tuning¹ for a smoother, more realistic experience. Intel® Extreme Memory Profiles (Intel® XMP) is a performance-packed expansion of the standard DDR3 memory specification, hitting speeds of 1600 MHz¹ or faster. Six SATA ports, including two SATA 6.0 Gb/s ports and one eSATA port, deliver greater flexibility. Build your system quickly with 90-degree rotated SATA ports and easy-to-locate, aligned front panel headers at the edge of the board. An included Bluetooth* / Wi-Fi* module connects to one of the internal USB ports, allowing for easy connections to wireless peripherals.

Performance tuning¹ for greater control

An Intel-designed BIOS with the new HyperBoot Technology gets your system up

and running in seconds. No need to wait for long delays as HyperBoot Technology gets you to the game faster and more easily than before. With flexibility and reliability in the BIOS, feel free to tweak and push this board to the limits. Intel's BIOS Vault Technology eliminates downtime due to BIOS corruption. The thermally balanced voltage regulators with sturdy thermal solutions and CHiL*, Advanced Digital Voltage Regulator Control, allows overclocking with confidence as the system stays cool. For instant diagnostic help, an onboard post code decoder LED cycles through post codes while booting. The watchdog timer recovers from crashes by restoring previous safe values. If you've pushed the watchdog timer past its limits, the easy-to-access Back-to-BIOS switch lets you get to maintenance mode without having to open the system chassis and without losing your previously defined BIOS settings.



Intel® Desktop Board DP67BG Extreme Series

Tools and software exclusive to Intel® Desktop Boards Extreme Series

Intel® Extreme Tuning Utility tunes, cools, and maximizes performance in Intel® Desktop Boards Extreme Series². This tool performance-tunes the processor, memory, and system clocks, and one-button auto-tuning monitors system temperature, component voltages, and fan speeds to ensure optimum performance.

The boxed Intel® Desktop Board DP67BG solution includes:

- ATX compliant I/O shield
- UV SATA cables
- Board and back panel I/O layout stickers
- Quick reference guide
- Intel® Express Installer driver and software DVD
- Bluetooth* / Wi-Fi* module
- NVIDIA* SLI* two-way connector
- Post code information card

Software included:

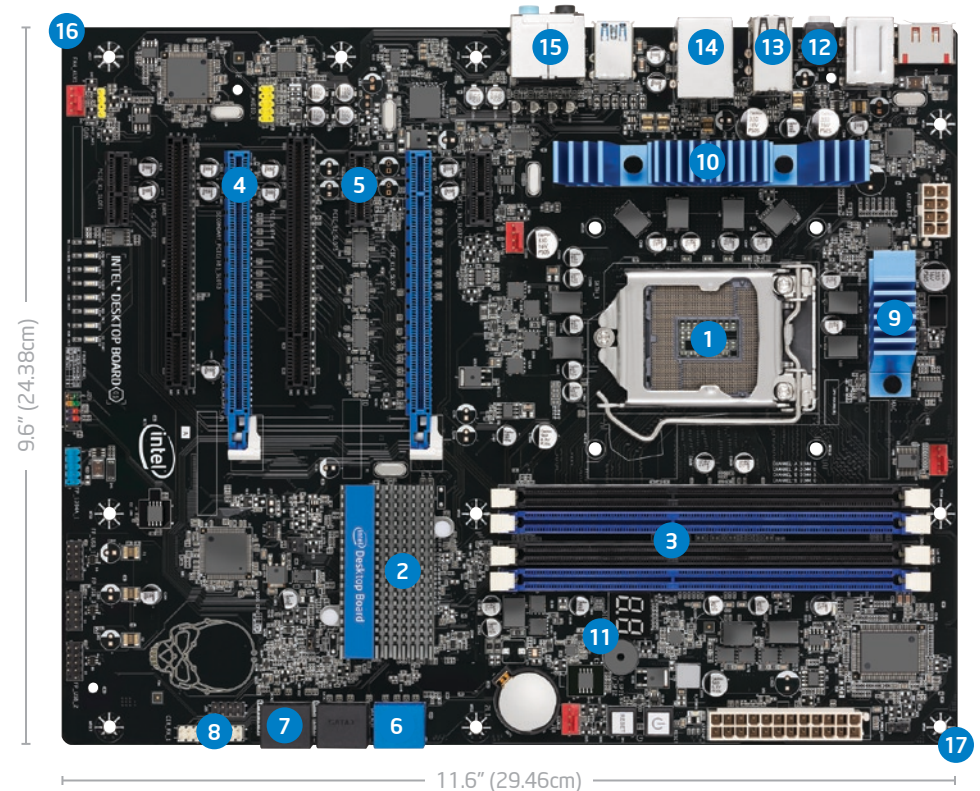
CAPABILITY	SOFTWARE INCLUDED:
Utilities	▪ Intel® Core Utilities Bundle ³ ▪ Intel® Extreme Tuning Utility (XTU) (Internet download)
Antivirus	▪ ESET* Smart Security

Intel® Desktop Board DP67BG Extreme Series

Features and Benefits

- 1 **Support for the Intel® Core™ i7 and Intel® Core™ i5 processors in the LGA1155 package:** Features Intel® Turbo Boost Technology⁴ and Intel® Hyper-Threading Technology⁵ for exceptional performance and scalability, and 8 MB shared Intel® Smart Cache, enabling dynamic and efficient allocation of cache.
- 2 **Intel® P67 Express Chipset:** Revolutionary single chip increases routing space for additional onboard features and lowers power consumption.
- 3 **Dual-channel DDR3 +1600¹ / 1333 / 1066 MHz memory support:** Four DIMM connectors support up to 32 GB⁶ memory connected directly to the processor via the Integrated Memory Controller.
- 4 **One PCI Express* 2.0 x16 connector:** Graphics with the ability to scale to dual x8 graphics supporting ATI* CrossFireX* and NVIDIA* SLI*.
- 5 **Two PCI Express 2.0 x1 connectors and two PCI expansion connectors:** Flexibility to support PCI Express and legacy PCI devices.
- 6 **Two SATA 6.0 Gb/s ports and four SATA 3.0 Gb/s ports, with one additional eSATA port:** Allows for multiple mass storage options using the most flexible HDDs possible.
- 7 **Intel® Rapid Storage Technology:** RAID 0, 1, 5, and 10 for higher performance data access and/or data protection.

- 8 **Consumer infrared receiver and transmitter:** Supports receiving, learning, and emitting capabilities, controls up to two additional CE devices with your PC, and eliminates the need for a USB CIR dongle.
- 9 **Exclusive voltage regulator thermal solutions:** Provides reliable and silent cooling for extreme performance tuning¹.
- 10 **Maximum ePower voltage regulator:** The addition of the CHiL* processor voltage regulator allows for improved power and voltage delivery to reach even better performance while running games and media applications.
- 11 **Post code decoder:** Allows for display of post codes for debug along with the included post code quick reference card displaying critical areas to help troubleshoot performance-increase roadblocks.
- 12 **Back-to-BIOS switch:** New feature allows easy system recovery with all the BIOS settings kept intact after pushing the performance envelope too far.
- 13 **One IEEE 1394a port with one additional port via internal header, and eight Hi-Speed USB 2.0 ports with six additional ports via three internal headers:** Provides for the most flexible connectivity options for front and back panels.
- 14 **Intel® PRO 10/100/1000 Network Connection:** Uses a new low-power design and can meet Energy Star* 5.0 specifications.



- 15 **Ten-channel Intel® High Definition Audio⁷ (7.1) and S/PDIF Out:** Enables high-quality integrated audio that rivals the performance of high-end discrete solutions.
- 16 **Lead-free:** Meets all worldwide regulatory requirements for lead-free manufacturing.
- 17 **ATX Form Factor:** ATX board supports more fully featured tower designs.

Intel® Desktop Board DP67BG Extreme Series

Technical Specifications

PROCESSOR

Processor Support

- Intel® Core™ i7 and Intel® Core™ i5 processors in the LGA1155 package
- Intel® Turbo Boost Technology⁴
- Intel® Hyper-Threading Technology⁵
- Integrated Memory Controller with support for up to 32 GB⁶ of system memory DDR3 +1600¹ / 1333 / 1066 MHz SDRAM
- Intel® Fast Memory Access
- Supports Intel® 64 architecture⁸

CHIPSET

New Intel® P67 Express Chipset

- Intel® 82P67 Platform Controller Hub (PCH)
- Intel® Rapid Storage Technology (RAID 0, 1, 5, 10)
- Six onboard SATA ports
- One eSATA (3.0 Gb/s) port on the back panel provided by a Marvell® 88SE6111 controller

USB 2.0

Integrated Intel® PCH controller

- Eight Hi-Speed USB 2.0 ports via back panel
- Six additional ports via three internal headers

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 V3.0b, DMI 2.5

Intel® Rapid BIOS Boot

- Intel® Rapid BIOS Boot
- Intel® Express BIOS update support: BIOS update via new F7 function key

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 3.0b

Intel® PRO 10/100/1000 Network Connection

- New low-power design can meet Energy Star* 5.0 specifications

Expansion Capabilities

- One PCI Express* 2.0 x16 connector, switchable to two PCI Express 2.0 x8 connectors
- Three PCI Express 2.0 x1 connectors
- Two PCI connectors

Audio

- 10-channel Intel® High Definition Audio⁷ codec
- 8-channel via the back panel
- 2-channel via the front panel
- Back panel support for output via optical cable
- One internal header for S/PDIF output for HDMI* support

SYSTEM MEMORY

Memory Capacity

- Four 240-pin DIMM connectors supporting up to two double-sided DIMMs
- Maximum system memory up to 32 GB⁶ using 8 GB double-sided DIMMs

Memory Types

- DDR3 +1600 / 1333 / 1066 SDRAM memory support
- Non-ECC Memory

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.

⁶System 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.

⁷Intel® 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

⁸64-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.

For ordering information, visit www.intel.com

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

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

Memory Modes

- Dual- or single-channel operation support

Memory Voltage

- 1.35 V low voltage
- 1.5 V standard JEDEC voltage
- Support for Intel® XMP extended voltage profiles

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
- Three front-panel Hi-Speed USB 2.0 headers
- Front-panel audio header
- One IEEE 1394a header

MECHANICAL

Board Style

- ATX

Board Size

- 9.6" x 11.6" (24.38 cm x 29.46 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

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.

¹Warning: 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 heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warrant, the operation of the processor beyond its specifications.

²Intel® Extreme Tuning Utility is only compatible with Intel® Desktop Boards based on the Intel® X38 Express Chipset and newer. Auto-tuning capabilities may not be available for all Extreme Series motherboards.

³The Intel® Core Utilities Bundle includes Intel® Integrator Assistant, Intel® Integrator Toolkit, Intel® Express Installer, and Intel® Express BIOS Update.

⁴Intel® 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 for more information.

⁵Intel® Hyper-Threading Technology requires a computer system with a processor supporting HT Technology and an HT Technology-enabled chipset, BIOS, and operating system. Performance

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