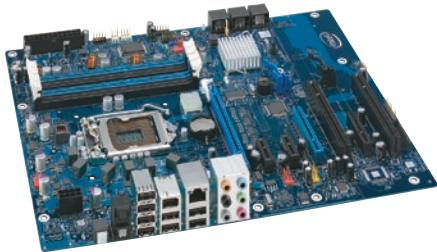ATX Form Factor

Intel® Desktop Board DP55WG Media Series

Equipping the creator

This year the Intel® Desktop Boards Media Series only gets better. The Intel® Desktop Board DP55WG is breaking barriers when it comes to the performance and bandwidth that digital media creators and multitaskers need most. Advanced audio places you in the middle of the action with a powerful set of tools that delivers a cinema-style experience in vivid surround sound. With incredible support for up to eight threads of processing power, dual-channel DDR3 memory, and support for ATI* CrossfireX* technology and NVIDIA* SLI* technology, the Intel Desktop Board DP55WG offers the best tools for any application.

Multitasking never looked so good

Developed for the latest generation of multimedia applications and delivering incredible performance, the Intel Desktop Board DP55WG has a revolutionary two-chip layout that enables lower power consumption, more advanced performance tuning[1], and multiple platform capabilities. A flexible PCI Express* 2.0 x16 slot, which is switchable to two PCI Express 2.0 x8 slots, takes computing to the next level in creating and sharing high-definition content quickly and easily.

Media Series with a Touch of Extreme

The Intel Desktop Board DP55WG has everything you need for great multimedia creation and sharing, plus extra features for the beginner enthusiasts. Build systems quickly with 90-degree rotated SATA ports and easy-to-locate, aligned front panel headers at the edge of the board. Six SATA ports provide more data flexibility. An onboard LED post code decoder cycles through post codes while booting. The third-generation watchdog timer recovers from crashes by restoring previous safe values. If the watchdog timer fails, the easy-to-access Back-to-BIOS switch goes into maintenance mode without having to open the system chassis.

Intel® Desktop Boards Media Series—the clear choice

Whether its digital photography or video editing, super-sized entertainment today demands breakthrough technology. The Intel Desktop Board DP55WG delivers great performance and the Intel® P55 Express Chipset series of boards is ideal for mid-level, high-performance desktops.

Intel® Desktop Board DP55WG Media Series

The boxed Intel® Desktop Board DP55WG 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
- NVIDIA* SLI* two-way connector
- Post code information card

Software included:

- **Intel® Desktop Utilities:** Monitors system temperatures, voltages, fan speeds, and hard drive health; provides detailed system information; and tests system hardware for common errors.

- **Intel® Integrator Assistant** (Internet download): Streamlines board integration.

- **DivX* Pro for Windows*:** Provides everything you need to burn, post, e-mail, store, or watch DivX* videos.

- **Dolby* Control Center:** A powerful set of easy-to-use home theater configuration tools delivers a cinema-style experience in vivid surround sound.

- **Norton Internet Security* 2009** (90-day trial): Removes viruses automatically, blocks certain Internet worm attacks, and protects e-mail and instant messages.

- **Additional free software:** Helps get your system up and running.

Intel® Desktop Board DP55WG Media Series
Features and Benefits

1 **Support for the Intel® Core™ i7 and Intel® Core™ i5 processors in the LGA1156 package:** Features Intel® Turbo Boost Technology[2] and Intel® Hyper-Threading Technology[3] for exceptional performance and scalability, and 8 MB Shared Intel® Smart Cache, enabling dynamic and efficient allocation of cache.

2 **Intel® P55 Express Chipset:** Revolutionary new single chip increases routing space for additional onboard features and lowers power consumption.

3 **Dual-Channel DDR3 1600+[1] / 1333 / 1066 MHz memory support:** Four DIMM slots support up to 16 GB[4] memory connected directly to the processor via the Integrated Memory Controller.

4 **One PCI Express* 2.0 x16 slot:** Graphics with the ability to scale to dual x8 graphics supporting ATI* CrossFireX* and NVIDIA* SLI*.

5 **One PCI Express 2.0 x4 slot, two PCI Express 2.0 x1 slots, and two PCI expansion slots:** Flexibility to support PCI Express and legacy PCI devices.

6 **Six SATA 3.0 GB/s ports:** Facilitates high-speed storage and data transfers.

7 **Intel® Matrix Storage Technology:** RAID 0, 1, 5, and 10 with Intel® Rapid Recover Technology 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 **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 trouble-shoot performance-increase roadblocks.

10 **Back-to-BIOS switch:** New feature allows easy system recovery with all the BIOS settings kept intact after pushing the performance envelope too far.

11 **One IEEE 1394a port with one additional port via internal header; eight Hi-Speed USB 2.0 ports with six additional ports via two internal headers:** Provides for the most flexible connectivity options for front and back panels.

12 **Intel® PRO 10/100/1000 Network Connection:** Uses a new low-power design and can meet Energy Star* 5.0 specifications.

13 **Dolby* Home Theater with 10-Channel Intel® High Definition Audio[5] (7.1) and S/PDIF In and Out:** Enables high-quality integrated audio that rivals the performance of high-end discrete solutions.
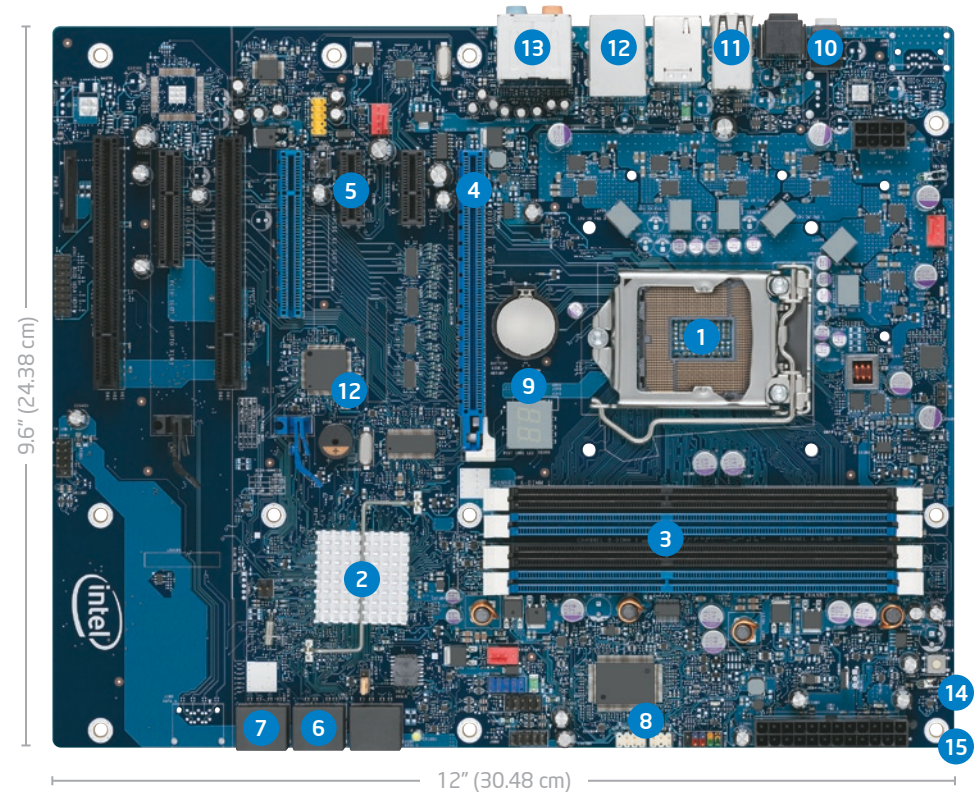
14 **Lead-free:** Meets all worldwide regulatory requirements for lead-free manufacturing.

15 **ATX (9.6" x 12") Form Factor:** MicroATX board supports smaller towers and systems.

9.6" (24.38 cm)

12" (30.48 cm)

Intel® Desktop Board DP55WG Media Series
Technical Specifications

PROCESSOR
Processor Support
- Intel® Core™ i7 and Intel® Core™ i5 processors in the LGA1156 package
- Intel® Turbo Boost Technology[2]
- Intel® Hyper-Threading Technology[3]
- Integrated Memory Controller with support for up to 16 GB[4] of system memory DDR3 1600+[1] / 1333 / 1066 MHz SDRAM
- Intel® Fast Memory Access
- Supports Intel® 64 architecture[6]

CHIPSET
New Intel® P55 Express Chipset
- Intel® 82P55 Platform Controller Hub (PCH)
- Intel® Matrix Storage Technology (RAID 0, 1, 5, 10)

Intel® Platform Controller Hub
- Six onboard SATA ports

USB 2.0
Integrated Intel® PCH controllers
- Eight Hi-Speed USB 2.0 ports
- Six additional ports via two internal headers

System BIOS
- 16 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 slot, switchable to two PCI Express 2.0 x8 slots
- Two PCI Express 2.0 x1 slots

Audio
- 10-channel Intel® High Definition Audio[5] codec
- 8-channel via the back panel
- 2-channel via the front panel
- Back panel support for both input and 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 16 GB[4] using 4 GB double-sided DIMMs

Memory Types
- DDR3 1600 / 1333 / 1066 / 800 SDRAM memory support
- Non-ECC Memory

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
- Two 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 12" (24.38 cm x 30.48 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
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)

(Pb) 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.

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www.intel.com

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visit **www.intel.com/go/idb**
or **http://ark.intel.com**

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

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