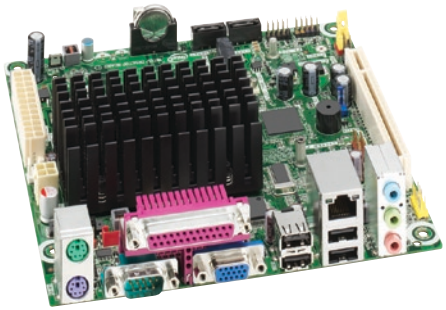
PRODUCT BRIEF
Intel® Desktop Board D525MW
Innovation Series

Mini-ITX / MicroATX-compatible

Intel® Desktop Board D525MW Innovation Series



Introducing the Intel® Desktop Board D525MW—an innovative and affordable desktop solution featuring the Intel® Atom™ processor D525 for entry-level desktop PCs. The Intel Desktop Board D525MW represents a fundamental shift in system design—small, yet powerful enough to enable a big Internet experience for all users. This new-generation board delivers a low-power, cost-optimized platform solution for basic computing.

The revolutionary two-chip layout enables lower power consumption and improved graphics performance for a better user experience. With this two-chip solution, the Intel Desktop Board D525MW saves 70 percent of its board layout size by adding additional features, enabling easier routing and better heat flow with the passive thermal solution.

The Intel Desktop Board D525MW, built with the Intel® NM10 Express Chipset, features the new integrated 1.8 GHz Intel Atom processor D525, and Intel® Graphics Media Accelerator 3150—an improved graphics core, compared with the previous-generation entry-level desktop PC. This board provides additional flexibility and upgradability for the entry-level desktop PC usage model with two single-channel SODIMM connectors for DDR3 1066 / 800 MHz memory support (4 GB[1] max), delivering even greater performance and power efficiency.

The Intel Desktop Board D525MW provides enhanced features such as 10/100/1000 Mb/s integrated LAN, and additional wireless options via the PCI Express* Mini Card, wireless card, WiMAX* card, or third-party HD video decoder card.

Supporting a USB Solid-State Drive keep-out-zone design, the Intel Desktop Board D525MW is ideal for the diskless usage model by integrating with a standard USB connector.

Integrated six-channel Intel® High Definition Audio[2], S/PDIF header, and legacy features, including two serial ports and one parallel port, support emerging market needs.

The Intel Desktop Board D525MW also features the mini-ITX form factor. Backward-compatible with ATX and microATX, this form factor allows you to build green and energy-efficient solutions.

This board powers simple, affordable, and Internet-centric computer designs in a compact 170mm x 170mm size, allowing designers the ultimate in small chassis flexibility.

At an affordable price point, the Intel Desktop Board D525MW is not only suitable to serve as an entry-level desktop PC, but is ideal for innovative system usage models such as kiosks, call centers, home surveillance solutions, and entry-level home entertainment systems.

Intel® Desktop Board D525MW Innovation Series

The boxed Intel® Desktop Board D525MW solution includes:

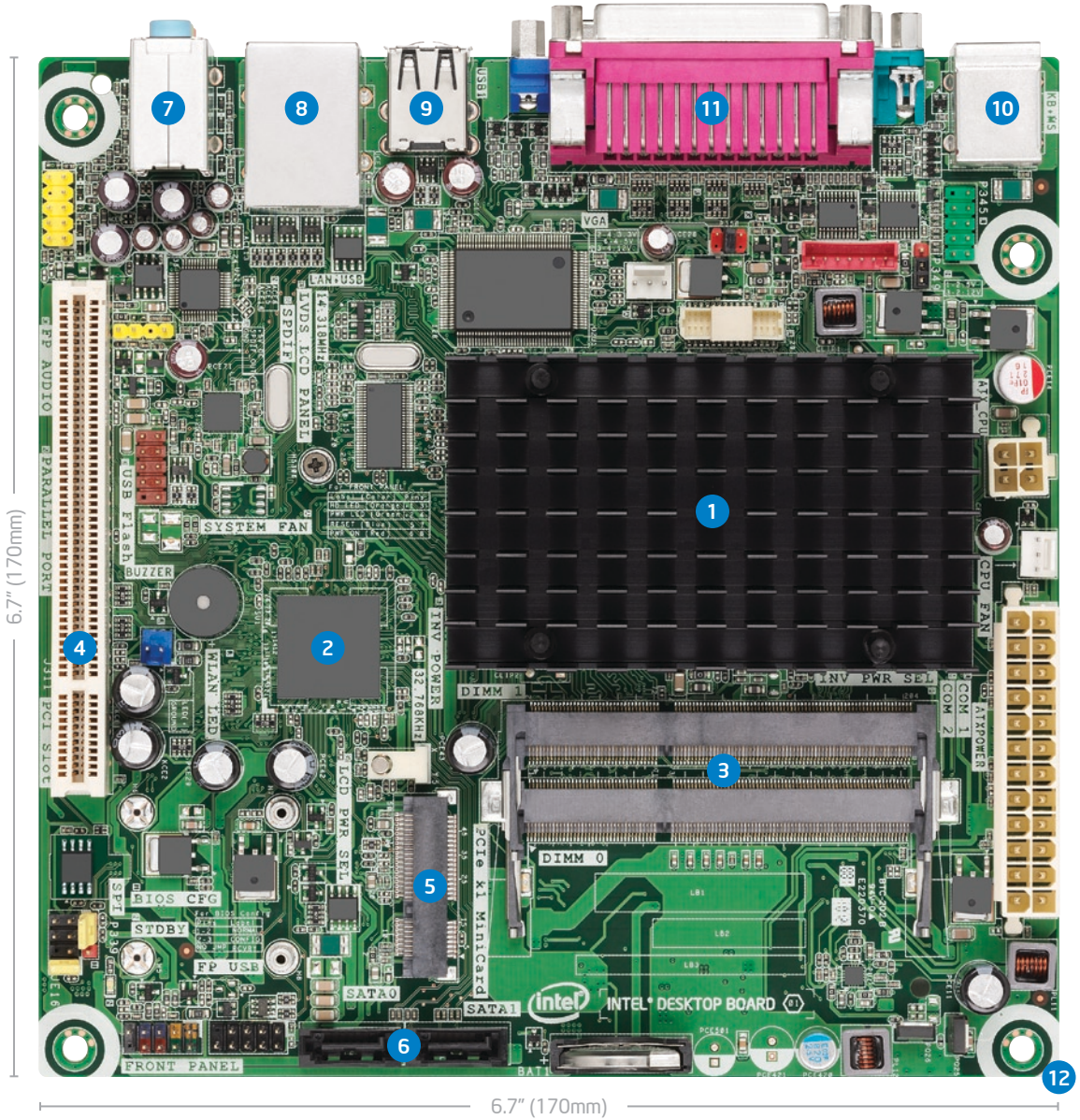
- ATX 2.2 compliant I/O shield
- SATA cables
- Board and back panel I/O layout stickers
- Quick reference guide
- Intel® Express Installer driver and software DVD
- Microsoft* Windows* 7 and Windows Vista* Basic WHQL certified

The takeaway software included with the Intel® Desktop Board D525MW works best for your everyday computing.

CAPABILITY	SOFTWARE INCLUDED:
Productivity	▪ Intel AppUp℠
	▪ Intel® Integrator Assistant (Internet Download)
	▪ Laplink* PCmover* Express
Entertainment	▪ DivX* for Windows*
Antivirus	▪ ESET Smart Security*

Intel® Desktop Board D525MW Innovation Series
Features and Benefits

1. **Integrated with the new dual-core Intel® Atom™ processor D525:** Features an integrated graphics core (Intel® GMA 3150) with graphics performance improvements.
2. **Intel® NM10 Express Chipset:** Designed to support the new Intel® Atom™ processor.
3. **Single-channel DDR3 with two connectors for 1066 / 800 MHz memory support (4 GB[1] max)**
4. **One PCI connector:** Expansion connector for custom system configurations and future add-in card upgrades.
5. **PCI Express* Mini Card connector**
6. **Two SATA ports (3.0 Gb/s)**
7. **Six-channel Intel® High Definition Audio[2]:** Integrated audio stereo at an excellent value.
8. **Integrated 10/100/1000 Mb/s Network Connection**
9. **Seven Hi-Speed USB 2.0 ports:** Four back panel ports and two additional ports via internal header; one USB port for flash card / Solid-State Drive.
10. **Two PS/2 ports:** Support keyboard and mouse.
11. **Parallel and serial ports:** Provides legacy device compatibility.
12. **Mini-ITX / microATX-compatible form factor**



Intel® Desktop Board D525MW Innovation Series
Technical Specifications

For ordering information, visit **www.intel.com**

For the most current product information, visit **http://developer.intel.com/products/desktop/motherboard/**

PROCESSOR
Processor Support
- Intel® Atom™ processor D525 (dual-core / 1.8 GHz / 512 KB x 2 L2 cache)

CHIPSET
- Intel® NM10 Express Chipset

Graphics
- Intel® Graphics Media Accelerator 3150

I/O Controller
- Two SATA ports (fully shrouded)
- Two PS/2 ports
- Two serial headers
- One serial port
- One parallel header

USB 2.0
- Four external ports
- Two ports via headers
- One USB for flash card / Solid-State Drive

Audio Solution
- Six-channel Intel® High Definition Audio[2] (with multi-streaming)
- Front-panel mic / headphone header
- S/PDIF header

10/100/1000 Network Connection
- Realtek* 10/100/1000 Mb/s Ethernet Controller

System BIOS
- 8 Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI Plug and Play, IDE drive auto-configure
- Advanced configuration and power interface V2.0b, DMI 2.0, multilingual support
- Serial Peripheral Interface (SPI) Flash

Intel® Rapid BIOS Boot
- Optimized POST for fast access to PC from power-on

SYSTEM MEMORY
Memory Capacity
- Single-channel DDR3 with two connectors for 1066 / 800 MHz memory support (4 GB max[1])

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

Memory Voltage
- 1.8 V

Wake-up from Network
- Wired for Management (WfM) 2.0 compatible
- Support for system wake-up using an add-in network interface card with remote wake-up capability

Expansion Capabilities
- One PCI connector
- One PCI Express* Mini Card connector

JUMPERS AND FRONT-PANEL CONNECTORS
Jumpers
- Jumper: yellow
- Header: black

Front-Panel Connectors
- Reset, HD LED, Power LEDs, power on/off, aux LED
- USB 2.0 headers
- Audio header

MECHANICAL
Board Style
- Mini-ITX / microATX-compatible

Board Size
- 6.7" x 6.7" (170mm x 170mm)

Baseboard Power Requirements
- ATX12V or SFX12V

ENVIRONMENT
Operating Temperature
- 0°C to +50°C

Storage Temperature
- -20°C to +70°C

REGULATIONS AND SAFETY STANDARDS
United States and Canada
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)

China
China RoHS (MII Order # 39)

[1] 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.

[2] 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

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

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