PRODUCT BRIEF Intel[®] Desktop Board D2500CC Innovation Series



Mini-ITX Form Factor

Intel[®] Desktop Board D2500CC Innovation Series





The Intel® Desktop Board D2500CC is the latest Innovation Series board that optimizes the performance of the Intel® Atom™ processor D2500 and the Intel® NM10 Express Chipset by delivering newgeneration technologies, value-added features, and easy integration. The Intel Desktop Board D2500CC is suitable for PC-like embedded products that require dual independent display capability.

The Intel Desktop Board D2500CC features the new integrated dual-core 1.86 GHz Intel Atom processor D2500. This processor supports Intel[®] Graphics Media Accelerator 3600, an improved graphics core that supports high-definition video playback capabilities compared with the previousgeneration entry-level desktop PC. This board provides flexibility and upgradability with two single-channel SODIMM connectors for DDR3 1066 / 800 MHz memory support (4 GB¹ max). The use of SODIMM memory modules delivers greater performance and power efficiency. The revolutionary two-chip layout continues to enable lower power consumption and saves 70 percent of its board layout size. This results in a board that has better heat flow with the passive thermal solution.

The Intel Desktop Board D2500CC provides enhanced features such as dual 10/100/1000 Mb/s integrated LAN, integrated six + two-channel Intel[®] High Definition Audio², four serial ports, and dual display capability with VGA and DVI-I ports. Supporting a USB Solid-State Drive keepout zone design, the Intel Desktop Board D2500CC is ideal for a diskless usage model by integrating the USB Solid-State Drive inside the chassis.

The Intel Desktop Board D2500CC is a mini-ITX form factor board. Backwardcompatible with ATX and microATX, this form factor allows you to build green, energy-efficient, small form factor solutions. This board offers simple and affordable PC-like embedded computer designs in a compact 170mm x 170mm size—perfect for a point-of-sale or digital signage system with a small form factor chassis.

Available at an affordable price, the Intel Desktop Board D2500CC is ideal for innovative PC-like embedded small form factor systems that require dual independent display and multiple I/O connections.



Intel[®] Desktop Board D2500CC Innovation Series

The boxed Intel® Desktop Board D2500CC 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 WHQL certified

The takeaway software included with the Intel[®] Desktop Board D2500CC works best for your everyday computing.

CAPABILITY	SOFTWARE INCLUDED:
Productivity	Intel AppUp SM
	 Intel[®] Integrator Assistant (Internet Download)
	Laplink* PCmover Express*
Entertainment	•DivX* for Windows*
Antivirus	 ESET* Smart Security 4 (45-day license)

Intel[®] Desktop Board D2500CC Innovation Series Features and Benefits

- 1 Integrated with the new dual-core Intel® Atom™ processor D2500: Features an integrated graphics core (Intel® GMA 3600) with high-definition graphics performance improvements.
- 2 Intel[®] NM10 Express Chipset: Designed to support the new Intel[®] Atom[™] processor D2500.
- Single-channel DDR3 with two connectors for 1066 / 800 MHz memory support (4 GB¹ max)
- One PCI connector: Expansion connector for custom system configurations and future add-in card upgrades.
- 5 One PCI Express* Mini Card connector: Expansion connector for future add-in upgrades such as Wi-Fi* or WiMax* cards.
- Two SATA ports (3.0 Gb/s)

- 7 Six-channel Intel[®] High Definition Audio²: Rich stereo audio at an excellent value.
- 8 Integrated dual 10/100/1000 Mb/s Network Connections
- 9 Seven Hi-Speed USB 2.0 ports: Four back panel ports and three additional ports via internal header.
- 10 **PS/2 port:** Supports keyboard or mouse.
- 1 Parallel header: Provides legacy device compatibility.
- 12 Four serial ports: Provide legacy connectivity to embedded devices.
- 13 Dual display capability with VGA and DVI-I ports
- Mini-ITX / microATX-compatible form factor



Intel[®] Desktop Board D2500CC 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 D2500 (dual-core / 1.86 GHz / 512 KB x 2 L2 cache)

CHIPSET

Intel[®] NM10 Express Chipset

Graphics

- Intel[®] Graphics Media Accelerator 3600
- One VGA port
 One DVI-I port
- 24bpp dual-channel LVDS connector

I/O Controller

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

USB 2.0

- Four external ports
- Three ports via headers

Audio Solution

- 6+2 channel Intel[®] High Definition Audio² (with multi-streaming)
- Front-panel mic / headphone header

Dual 10/100/1000 Network Connections

 Intel[®] 82574L 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 autoconfigure
- Advanced configuration and power interface V2.0b, DMI 2.0, multilingual support
- Serial Peripheral Interface (SPI) Flash

Fast Boot BIOS

• Optimized POST for almost instant-on access to PC from power-on

SYSTEM MEMORY

- Memory Capacity
- Single-channel DDR3 with two connectors for 1066 / 800 MHz memory support (4 GB¹ max)

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
170mm x 170mm

Baseboard Power Requirements • ATX12V or SFX12V

ENVIRONMENT

• 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

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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