



The solid choice for your 800-MHz FSB, Single-channel DDR400 desktop board needs.

www.intel.com



Intel® Desktop Board
D848PMB for the
Intel® Pentium® 4 Processor

Intel® Desktop Board D848PMB



Enables Solid Desktop Performance.

The Intel® Desktop Board D848PMB

features an 800-MHz FSB, single-

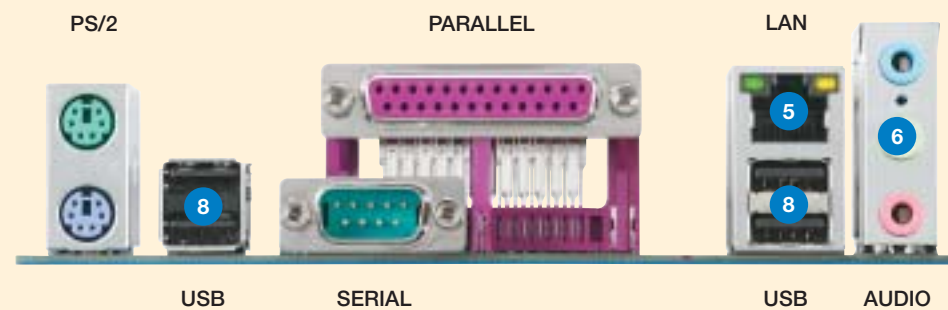
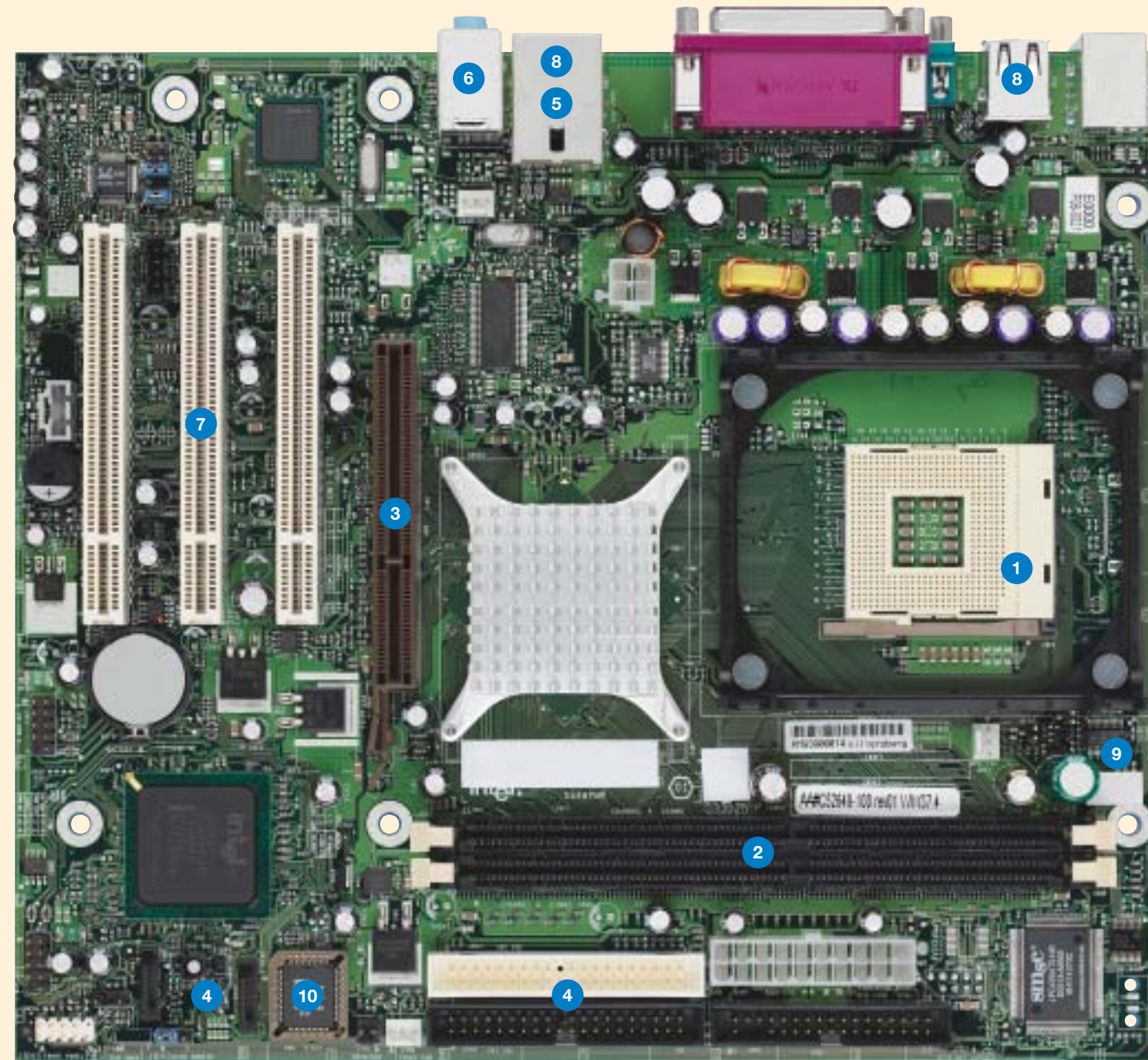
channel DDR400 memory support,

AGP 8X graphics interface, and

SATA150 hard drive support.

FEATURES AND BENEFITS

- 1 Support for the Intel® Pentium® 4 processor featuring Hyper-Threading Technology and 800-MHz system bus in the mPGA478-pin package.** Also supports the Intel® Pentium® 4 processor (1.60a, 1.80a, 2a, 2.20 GHz or higher) with 800/533-MHz or 400-MHz system bus in the mPGA478 package. Intel® Celeron® processors (2 GHz or higher) in the mPGA478 package.
- 2 Single-Channel DDR400 SDRAM memory support:** Two DIMM sockets designed to support up to 2 GB of DDR400 SDRAM memory (also supports DDR333 and DDR266).
- 3 AGP 8X graphics interface:** Support for high-end AGP graphics cards.
- 4 SATA 150 and Ultra ATA100 connectors:** Flexible support of new-generation SATA150 (2 ports) and current generation ATA (2 channels) storage devices.
- 5 Integrated Intel® PRO 10/100 LAN (optional):** Onboard 10/100-Mbps LAN.
- 6 AC'97 Audio:** 2-channel digital audio.
- 7 Three PCI slots:** Expansion slots for custom system configurations and future add-in card upgrades.
- 8 Eight Hi-Speed USB 2.0 ports:** Four rear ports and headers for four front-panel USB ports.
- 9 Intel® Precision Cooling Technology:** Advanced management ASIC supports temperature-based fan control. Fan speeds adjust real time according to system temperatures to help reduce unnecessary noise and energy consumption.
- 10 Intel® Rapid BIOS Boot:** Accelerates Power-On Self Test (POST) for faster system access.
- 11 Instantly-Available PC (suspend-to-RAM):** Enables advanced power savings (not pictured).



BOXED INTEL® DESKTOP BOARDS D848PMB SOLUTION INCLUDES:

- Intel® Desktop Board D848PMB
- ATX compliant I/O shield
- IDE cable
- Board and back-panel I/O layout stickers
- Quick Start Guide
- Desktop Board three-year limited warranty
- Intel® Express Installer CD, including:
 - Norton® Internet Security® 2003
 - Intel® Active Monitor
 - NTI CD-Maker®
 - RealOne® Player
 - Diskeeper® Lite
 - InterVideo® WinDVD® Creator Silver
 - InterVideo® WinDVD® Recorder Silver
 - RestoreIT!® Lite
 - Software Drivers
 - Product Matrix

Intel® Desktop Board D848PMB

Processor

Processors Supported	<ul style="list-style-type: none"> Intel® Pentium® 4 processors supporting Hyper-Threading Technology¹ with 800-MHz or 533-MHz system bus in the mPGA478-pin package Intel Pentium 4 processors (1.60a, 1.80a, 2a, 2.20 GHz or higher) with 533-MHz or 400-MHz system bus in the mPGA478-pin package Intel® Celeron® processors (2 GHz or higher) with 400-MHz system bus in the mPGA478-pin package
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Intel® 848P Chipset	<ul style="list-style-type: none"> Intel® 82801EB I/O Controller Hub (ICH5) with Accelerated Hub Architecture bus
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Memory Controller Hub (MCH)	Designed to support up to 2 GB ² of system memory using DDR400 ² /333 ^{4,5} /266 SDRAM memory
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Intel® ICH5 I/O Controller Hub	<ul style="list-style-type: none"> Ultra ATA 100/66 PCI request-grant pairs for support of three PCI bus masters Two SATA 150 (1.5 Gbps) ports Intel® PRO 10/100 network connection (optional)
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I/O Features	Integrated super I/O LPC bus controller <ul style="list-style-type: none"> Three PCI local bus slots Designed for PC2001
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USB 2.0	Integrated Intel® ICH5 controllers: <ul style="list-style-type: none"> Four back-panel ports (two dual stack) Four front-panel ports (via 2-headers requiring cabling to front panel)
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Firmware Hub

System BIOS	<ul style="list-style-type: none"> 4-Mb Flash EEPROM with Intel/AMI® BIOS featuring Plug and Play, IDE drive auto-configure Advanced configuration and power interface V1.0b, DMI 2.0, multilingual support
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Intel® Rapid BIOS Boot	<ul style="list-style-type: none"> Optimized POST for faster access to PC from power-on
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System Memory

Memory Capacity	<ul style="list-style-type: none"> Two 184-pin DIMM connectors supporting up to two double-sided DIMMs
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Memory Types	<ul style="list-style-type: none"> DDR400 SDRAM Memory (when used with Intel® processor with 800-MHz system bus) DDR333³ SDRAM Memory (when used with Intel processor with 800-MHz or 533-MHz system bus) DDR266 SDRAM Memory Non-ECC RAM (ECC memory will run in non-ECC mode)
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Memory Modes	<ul style="list-style-type: none"> Single-channel operation support
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Memory Voltage	<ul style="list-style-type: none"> 2.5V
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Hardware Management Features

- System chassis fan speed control
- Voltage and temperature sensing
- Fan sensor inputs used to monitor fan activity
- Power management support for ACPI 1.0b

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 or integrated LAN

Expansion Capabilities

- Three PCI bus add-in card connectors
- One 1.5/0.8V AGP 3.0 connector supporting up to AGP 8X

Jumpers and Front-Panel Connectors

Jumpers	<ul style="list-style-type: none"> Single configuration jumper design Jumper access for BIOS configuration mode
Front-Panel Connectors	<ul style="list-style-type: none"> Reset, HD LED, Power LEDs, power on/off, standby header Two front-panel USB headers Front-panel audio header

Mechanical

Board Style	MicroATX 1.0-compliant
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Board Size	9.5" x 8.5"
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Baseboard Power

Requirements	ATX12V or SFX12V
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Environment

Operating Temperature	0° C to +55° C
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Storage Temperature	-40° C to +70° C
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Regulations

Safety Regulations	
<i>U.S. and Canada</i>	UL 1950, Third edition—CAN/CSA C22.2 No. 950-95 with recognized U.S. and Canadian component marks
<i>Europe International</i>	Nemko certified to EN 60950 Nemko certified to IEC 60950 (CB report with CB certificate)

EMC regulations (tested in representative chassis)	
<i>U.S.</i>	FCC Part 15, Class B
<i>U.S.</i>	FCC Part 15, Class B open-chassis (cover off) testing
<i>Canada</i>	ICES-003, Class B
<i>Europe</i>	EMC directive 89/336/EEC; EN 55022:1998 Class B; EN 55024:1998
<i>Australia/New Zealand</i>	AS/NZS 3548, Class B
<i>Taiwan</i>	CNS 13438, Class B
<i>International</i>	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.

ORDERING INFORMATION

See Intel's Web site at www.intel.com

For the most current product information available,

visit Intel's Web site at: developer.intel.com/design/motherbd/

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¹ Hyper-Threading requires a computer system with an Intel® Pentium® 4 processor supporting this technology, a chipset and BIOS that utilize this technology, and an operating system that includes optimizations for this technology. Performance will vary depending on the specific hardware and software you use. See www.intel.com/info/hyperthreading for information.

² DDR400 memory only supported in combination with Intel® Pentium® 4 processor with 800-MHz system bus.

³ Desktop Board D848PMB was designed to support up to 2 GB total system memory using DIMMs based on 512-Mbit technology. For more information about the latest list of tested memory, refer to the Intel World Wide Web site at: <http://support.intel.com/support/motherboards/desktop/>

⁴ When using an 800-MHz FSB CPU, DDR333 memory is clocked at 320 MHz. This minimizes system latencies to optimize system performance.

⁵ DDR333 memory not supported in combination with Intel® Pentium® 4 processor with 400-MHz system bus.

