# Intel® Desktop Boards D845EBT Technical Specifications

Processor

**Processors Supported** Intel® Pentium® 4 processors with Intel® NetBurst® microarchitecture including 533 or 400 MHz system bus in the mPGA478-pin package

> Intel® Celeron® processors including 400 MHz system bus in the mPGA478-pin package

Chipset

Intel® 845E Chipset Intel® 82845E Memory Controller Hub (MCH)

with Accelerated Hub Architecture bus

Intel® 82801DB I/O Controller Hub (ICH4) with Accelerated Hub Architecture bus

Memory Controller Hub (MCH)

Controller Hub

Designed to support up to 2GB\*\* (with 512Mb technology) of DDR266 or DDR200 SDRAM memory

Intel® ICH4 I/O Ultra ATA/66/100

> Ultra DMA/33 Six PCI request-grant pairs for support of six PCI bus masters

**External Interfaces** 

I/O and Expansion Capabilities

Integrated super I/O LPC bus controller

Five PCI bus add-in card connectors (PCI local bus Specification Revision 2.2)

One Communication and Networking Riser (CNR) connector

One 1.5V 4X/2X AGP port connector

Power management support for ACPI 1.0 PC 01, PC 99, and PC 99A compliance

Six USB 2.0 Ports\*\*\*

Integrated Intel ICH4 controller

- Four back-panel ports (two dual stacks)

 Two front panel ports (header requiring cable to front panel)

Three IEEE-1394a Ports

Integrated Agere\* FW323 controller

- One back-panel port

- Two front panel ports (header requiring

cable to front panel

IDE RAID (ATA-100) Integrated Promise Technologies\*

PDC20267 controller

- Two dedicated IDE connectors

- Support for RAID 0,1,0+1

Firmware Hub

System BIOS

4Mb 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

Intel® Rapid BIOS Boot

Optimized POST for faster access to PC from power-on

**System Memory** 

Memory Capacity

Two 184-pin DIMM connectors supporting up to two double-sided DIMMS

Double Data Rate (DDR266 or DDR200) Memory Type SDRAM in 64Mb, 128Mb, 256Mb and

512Mb technologies

Memory Voltage 2.5V

#### **Hardware Management and Control Features**

Voltage and temperature sense

Fan-sensor inputs used to monitor fan activity Configurable automatic closed-loop fan control

# Wake-Up From Network

Wired for Management (WfM) 2.0 compliant

Support for system wake up using an add-in network interface card with remote wake-up capability or PCI

#### **Jumpers and Front Panel Connectors**

Single configuration jumper design Jumpers

Jumper access for BIOS configuration mode

Front Panel Connector Reset, HD LED, Power LEDs, power on/off,

standby header, Aux LED

Mechanical

**Board Style** ATX 2.03 compliant

**Board Size** 12.0" x 8.2" (300mm x 206mm)

Power Requirements ATX12V

Environment

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

Regulations

Safety Regulations

U.S. and Canada UL 1950 and CSA 950-95

U.S. and Canadian recognition

component marks UL classified to IEC 950 **Furope** 

EMI/RFI Regulations

Intended for use in systems meeting the following EMI/RFI regulations:

U.S. FCC Class B (DofC - Cover off testing)

Canada IC Class B

EU Class B (Res, Com, Light Industry) Furone

VCCI, Class B (ITE)

Power requirements vary. Complies with US CRF via EN55022 + 6db 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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All products, dates, and figures specified are preliminary based on current expectations, provided for planning purposes only, and are subject to change without notice

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"Designed to support up to 2GB DDR266 SDRAM memory using 512Mb technology. Currently validated to 1.0GB using 256Mb technology Visit http://developer.intel.com/support/motherboards/desktop/ for latest validated memory support.

\*\*\*USB 2.0 ports are fully backwards compatible with USB 1.1 devices, Drivers for USB 2.0 are available for Windows\* 2000 and Windows XP\* operating systems devices used on systems with other operating systems will operate at USB 1.1 speeds

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# Intel® Desktop Board D845EBT for the Intel® Pentium® 4 Processor

Intel® Desktop Board D845EBT is the optimal board for building a high performance feature-rich enthusiast PC at a mainstream price point. Desktop Board D845EBT delivers great features for gaming and media enthusiasts:

### **Surround Sound Audio**

Featuring SoundMAX\* Cadenza\*

- Premium audio performance
- Complete analog and digital I/O for high fidelity speakers or home theater

#### IDE RAID 0. 1. 0+1

- Transfer media and other files quickly with striping onto two or four hard drives
- Protect data with mirroring onto two or four drives
- Gain both speed and data protection with striping and mirroring onto four drives

# Stereo Microphone for Voice Recognition

Featuring SoundMAX Cadenza with PureAudio\*

- Effective voice recognition even in noisy environments
- Great performance for Internet telephony, command-and-control, and dictation

## USB 2.0 and IEEE-1394a Ports

Connectivity for a full range of consumer electronics

With the latest technologies and high quality integrated components, Desktop Board D845EBT enables system builders to realize significant cost savings without sacrificing performance. The features of this new board support an optimal user experience in a broad range of usage models for today's enthusiasts:

- Gaming: Optimal gaming experience with surround sound. RAID performance boost, stereo microphone input for Voice over IP (VoIP), and USB 2.0 for the latest game controllers.
- Digital music and video: Enhance music and movies with surround sound, and optimize file transfer with RAID while building media libraries or editing video. Connect camcorders with USB 2.0 or IEEE-1394a.
- Digital photography: Download photos quickly with either USB 2.0 or IEEE-1394a and save them guickly using RAID.
- Online communication: Realize the true benefits of Internet telephony with stereo microphone input and SoundMAX Cadenza software.

Combined with the performance of the Intel® Pentium® 4 processor and the Intel® 845E chipset with DDR support, Desktop Board D845EBT is an exceptional platform for building an exciting, feature-rich PC.

# **Light-Augmented Desktop Board D845EBT Includes:**

- Desktop Board, including:
- Pre-installed retention mechanism for processor thermal solution
- AGP connector with integrated retention mechanism
- ATX-compliant I/O shield
- Board and back-panel I/O layout stickers
- One-year limited warranty

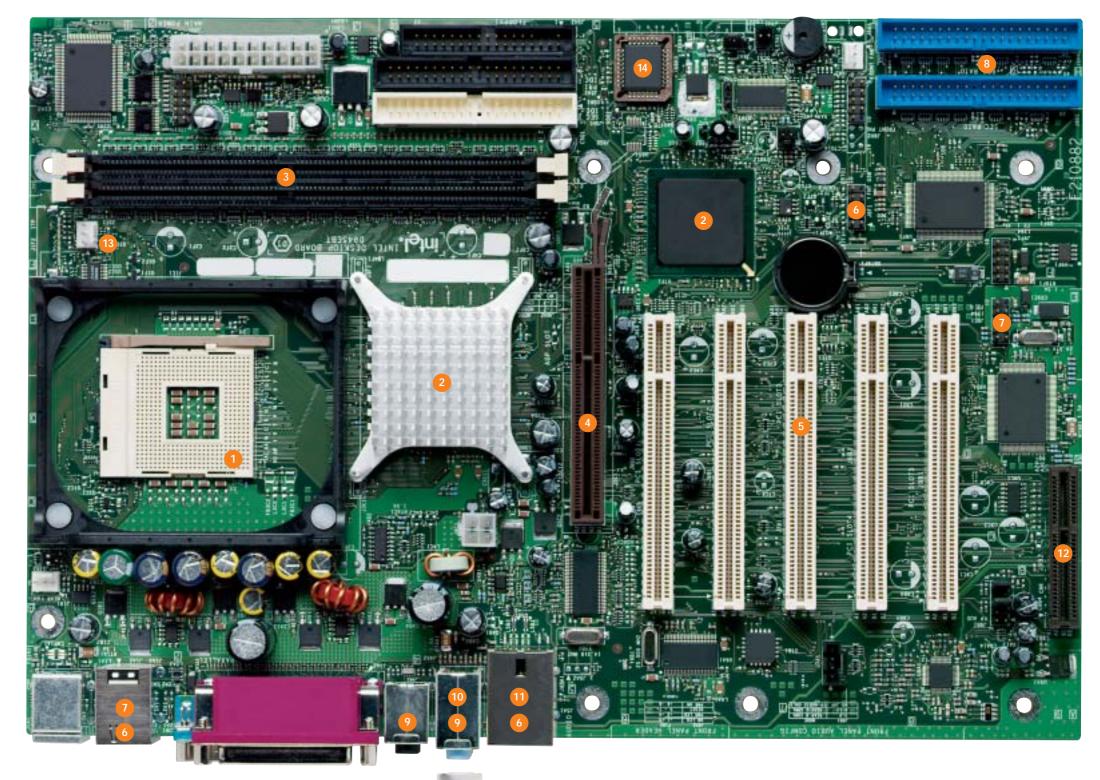
# Intel® Desktop Board D845EBT

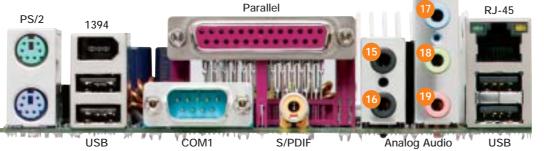
### Features & Benefits

- 1 Support for the Intel® Pentium® 4 Processor with 533 or 400 MHz system bus: Supports Pentium 4 processors in the mPGA478-pin package and Intel® NetBurst™ microarchitecture
- 2 Intel® 845E Chipset featuring support for six USB 2.0 ports: Advances beyond the Intel® 845 chipset with support for 533 MHz system bus and six USB 2.0 ports
- 3 Two DIMM Sockets for DDR266 SDRAM: Designed to support up to 2GB\*\* of DDR266 SDRAM memory
- 4 AGP 4X Connector: Support for the latest graphics technology
- Five PCI Slots: Expansion slots for custom system configurations and future add-in card upgrades
- 6 Six USB 2.0 Ports: Two dual-port rear connectors and header for two front panel ports
- 7 Three IEEE-1394a Ports: One rear connector and header for two front panel ports
- Two RAID IDE Connectors with Support for RAID 0,1,0+1: Gain both speed and data protection with striping and/or mirroring
- 9 Surround Sound Audio Including SoundMAX\* Cadenza\* with SPX\*: Full-featured performance audio without an expensive add-in card
- Voice Recognition with Stereo Microphone Input: Effective voice recognition for VoIP and command and control of desktop applications
- 11 Intel® PRO/100 network Connection: On-board 10/100 Mbps Ethernet LAN connectivity utilizing Intel® 82562ET LAN
- Communication and Networking Riser (CNR)
  Support: Plug and Play technology ideal for adding a low-cost modem card
- Quiet Cooling with Fan Control: Advanced management ASIC supports temperature-based fan control and enables remote system monitoring
- 14 Intel® Rapid BIOS Boot: Reduced boot time enables faster system access

# The Intel Desktop Board D845EBT Also Features:

- Instantly available PC (suspend-to-RAM):
   Reduced PC power consumption and provides
   immediate PC access using advanced wake-up logic
- One-year limited warranty:
   Expanded investment protection





# I/O Back Panel

**Featuring Integrated Surround Sound Audio Connectors** 

- 17 Line In
- 15 Rear R-L
- 18 Front R-L
- 16 Center-LFE
- 19 Stereo Mic