



# Introducing the Extreme Series Intel® Desktop Boards for High-End Gamers and Power Users.

## Intel® Desktop Boards D925XECV2 and D925XBC2



The all new Intel® Desktop Boards D925XECV2 and D925XBC2 harness the advanced computing power of the Intel® Pentium® 4 processor Extreme Edition supporting Hyper-Threading Technology and are optimized to deliver new levels of performance for power users and high-end gamers. Based on the Intel® 925XE Express Chipset featuring Intel's advanced performance architecture, the Desktop Boards D925XECV2 and D925XBC2 with Intel® Matrix Storage Technology bring new levels of performance to the desktop by combining support for a 1066-MHz system bus, dual-channel DDR2 533 memory, PCI Express\* x16 graphics, and native SATA150 RAID. Premium features such as Gigabit Ethernet LAN, 1394a ports, and Intel® High Definition Audio (supports 7.1 surround sound) further enhance this high-performance platform.

This high-performance solution meets a broad range of demanding computing needs. It enables exciting new home entertainment uses for consumers, while giving business users a platform based on advanced technologies that have been thoroughly tested for reliability and performance to help meet the demanding needs of today and tomorrow's applications.

### **Loaded with new high-performance technologies**

The Intel 925XE Express Chipset can help deliver maximized system performance through its high-bandwidth interfaces, such as dual-channel DDR2 main memory, 1066-MHz system bus, PCI Express\* graphics and I/O architecture, and Hi-Speed USB 2.0 connectivity. PCI Express architecture enables increased bidirectional bandwidth to the graphics and I/O interfaces. With a 500 MB/s concurrent data transfer rate, it more than triples the I/O bandwidth of traditional PCI architecture. And with 4 GB/s per direction PCI Express graphics capability, it provides up to four times the graphics bandwidth of previous high-performance graphics interfaces. The Intel 925XE Express Chipset's high-performance architecture delivers additional system-level performance via enhanced memory pipelining that enables a higher utilization of each memory channel, improving data access. To support the increased graphics requirements and I/O bandwidth, the Intel 925XE Express Chipset incorporates a new Memory Controller Hub (MCH) backbone architecture.

This new design includes wider internal data buses that support dual-channel DDR2 memory technology at 533 MHz or 8.53 GB/s of peak memory bandwidth, for improved platform performance. The new architecture also supports both asynchronous and true isochronous data traffic, with dedicated internal pipelines and specialized arbitration. In addition, the Intel 925XE MCH has improved electricals with optimized ball-out for better latency with an additional bypass enabled. These enhancements enable Intel 925XE Express Chipset-based desktop boards to take full advantage of the performance of these new high-speed interfaces.

Intel Matrix Storage Technology provides enhanced RAID support that allows critical data to be stored on a single array that is optimized for high reliability (RAID 1) while also allowing memory and storage intensive applications, such as games, to be optimized for maximum performance (RAID 0).



## Software

Intel Desktop Boards D925XECV2 and D925XEBC2 feature a full suite of software applications. Intel® Desktop Control Center allows users to optimize, measure, and test system performance settings ([www.intel.com/go/dcc](http://www.intel.com/go/dcc)). Intel® Audio Studio\*\* combines Intel High Definition Audio hardware with Dolby Digital Live<sup>††</sup> and Sonic Focus\* audio refinements for an exceptional acoustic experience. Intel® Desktop Utilities\*\*\* allow you to monitor system health, conduct advanced hard drive defragment operations, backup, and security check your system anytime needed. Other titles such as GameSpy\* Arcade, Musicmatch\* Jukebox, Norton Internet Security\*, InterVideo\* Home Theater Silver, InterVideo\* WinDVD Creator Silver, NTI CD-Maker\*, Detto Intellimover\* Special Offer, and Farstone\* RestoreIT! round out this exceptional selection of apps.

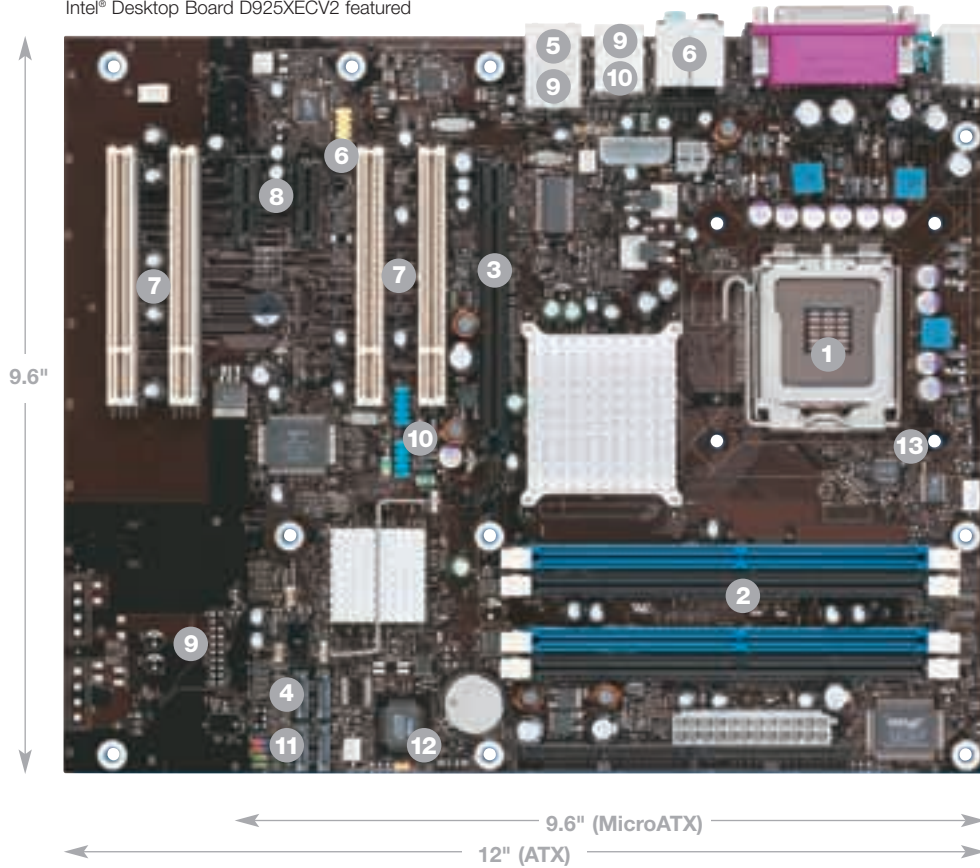
## Easy to integrate

To easily integrate a high-performance system, Desktop Boards D925XECV2 and D925XEBC2 also include: Intel® Express Installer to streamline the installation of drivers and applications, four UV activated SATA cables, two SATA power cables, a back-panel card with two USB 2.0/one 1394a ports, a front-panel card with two USB 2.0/one 1394a/two audio ports, floppy and ATA 100/66 cable, I/O shield, and audio port cover. Includes an integration guide poster with step-by-step instructions for DIY system assembly.

## Boxed Intel® Desktop Boards D925XECV2 and D925XEBC2 solution includes:

- Intel® Desktop Board D925XECV2 or D925XEBC2
- ATX compliant I/O shield
- Back-panel card: USB 2.0/1394a
- Front-panel card: USB 2.0/1394a/audio
- Audio port cover
- Four UV activated SATA cables
- Two SATA power cables
- Rounded IDE cable
- Rounded Floppy cable
- Board and back-panel I/O layout stickers
- Quick Reference and Product Guide
- Integration Guide (poster)
- RAID Driver (floppy)
- Desktop board three-year limited warranty
- Intel® Express Installer CD, including:
  - Intel® Audio Studio\*\*
  - Musicmatch\* Jukebox
  - GameSpy\* Arcade
  - Intel® Desktop Utilities\*\*\*
  - InterVideo\* WinDVD Creator Silver
  - InterVideo\* Home Theater Silver
  - NTI CD-Maker\*
  - Norton Internet Security\*
  - Farstone\* RestoreIT! Lite
  - LANDesk\* System Manager†
  - Detto Intellimover\*
  - Software Drivers
  - Product Matrix

Intel® Desktop Board D925XECV2 featured



## Features and Benefits

### Intel® Desktop Boards D925XECV2 and D925XEBC2

- 1 Supports the Intel® Pentium® 4 processor Extreme Edition supporting Hyper-Threading Technology<sup>1</sup> and 1066-MHz system bus in the LGA775 package.**
- 2 Dual-channel DDR2 533 SDRAM memory support:** Four DIMM sockets designed to support up to 4 GB<sup>2</sup> of DDR2 533 SDRAM memory (also supports DDR2 400 memory). Supports Non-ECC memory.
- 3 PCI Express\* x16 graphics interface:** PCI Express\* bus provides enhanced bandwidth for next-generation graphics card technology and future headroom.
- 4 SATA150 headers:** Flexible support for SATA150 (4 ports) storage devices.
- 5 Integrated Gigabit Ethernet LAN solution.**
- 6 Intel® Audio Studio:** Combines Intel® High Definition Audio hardware with Dolby Digital Live<sup>††</sup> and Sonic Focus\* audio refinements to deliver premium 8-channel audio (header for front-panel audio ports).
- 7 Four PCI connectors (Desktop Board D925XECV2) or two PCI connectors (Desktop Board D925XEBC2):** Expansion slots for custom system configurations and future add-in card upgrades.
- 8 Two PCI Express\* x1 connectors (Desktop Board D925XECV2) or one PCI Express\* x1 connector (Desktop Board D925XEBC2):** Expansion capabilities for the industry's latest add-card technology.
- 9 Eight Hi-Speed USB 2.0 ports:** Four rear ports and headers for four additional front/rear-panel USB ports.
- 10 Three 1394a ports:** One rear-panel port and headers for two additional front/rear-panel ports.
- 11 Intel® Matrix Storage Technology:** SATA RAID 0, 1, and Intel® Matrix RAID capabilities.
- 12 Intel® Rapid BIOS Boot:** Reduces BIOS boot time for quicker system access.
- 13 Intel® Precision Cooling Technology:** Enables advanced fan speed control to help keep system cool and quiet.

# Technical Specifications

## Processor

### Processors Supported

Intel® Pentium® 4 processor Extreme Edition supporting Hyper-Threading Technology<sup>1</sup> with 1066-MHz or 800-MHz system bus in the LGA775 package. Supports boxed Intel processors with packaging designated by 04B or 04A.

## Chipset

### Intel® 925X Express Chipset

Designed to support up to 4 GB<sup>2</sup> of system memory using DDR2 533/400 SDRAM; Supports Non-ECC memory

Intel® Matrix Storage Technology (RAID 0/1/Intel® Matrix RAID)

PCI Express\* x16 graphics

### Intel® ICH6 I/O Controller Hub

Ultra ATA 100/66

Four SATA (1.5 Gb/s) ports

Gigabit LAN network connection

### I/O Features

Integrated super I/O LPC bus controller:

- Four (two) PCI local bus connectors
- Two (one) PCI Express\* x1 connectors
- Designed for PC2001

### USB 2.0

Integrated Intel® ICH6-R controllers:

- Four back-panel ports
- Four additional ports (via 2-headers and included front/rear-panel cards)

## Firmware Hub

### System BIOS

8-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

### Intel® Rapid BIOS Boot

Optimized POST for faster access to PC from power-on

### Intel® Precision Cooling Technology

Advanced thermal management system dynamically adjusts fan speeds to keep system cool and improve noise levels

## System Memory

### Memory Capacity

Four 240-pin DIMM connectors supporting up to four double-sided DIMMs

### Memory Types

DDR2 533/400 SDRAM memory

Non-ECC memory

### Memory Modes

Dual or single-channel operation support

### Memory Voltage

1.8V

## Hardware Management

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 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

Four PCI bus add-in card connectors (D925XECV2)

Two PCI bus add-in card connectors (D925XEBC2)

Two PCI Express\* x1 bus add-in card connectors (D925XECV2)

One PCI Express\* x1 bus add-in card connector (D925XEBC2)

One PCI Express\* x16 graphics connector

## 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/rear-panel 1394a headers

Front-panel audio header

## Mechanical

### Board Style

Desktop Board D925XECV2—ATX 2.03-compliant

Desktop Board D925XEBC2—MicroATX 1.0-compliant

### Board Size

Desktop Board D925XECV2—9.6" x 12"

Desktop Board D925XEBC2—9.6" x 9.6"

### Baseboard 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, Third edition—CAN/CSA C22.2 No. 950-95 with recognized U.S. and Canadian component marks

#### Europe

Nemko certified to EN 60950

#### International

Nemko certified to IEC 60950

(CB report with CB certificate)

### EMC regulations

#### (tested in representative chassis)

#### U.S.

FCC Part 15, Class B

#### U.S.

FCC Part 15, Class B open-chassis (cover off) testing

#### Canada

ICES-003, Class B

#### Europe

EMC directive 89/336/EEC; EN 55022:1998, Class B; EN 55024:1998

#### Australia/New Zealand

AS/NZS 3548, Class B

#### Taiwan

CNS 13438, Class B

#### International

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](http://www.intel.com)**

**For the most current product information available, visit Intel's Web site at: [developer.intel.com/design/motherbd/](http://developer.intel.com/design/motherbd/)**

<sup>1</sup> Hyper-Threading Technology requires a computer system with an Intel® Pentium® 4 processor supporting Hyper-Threading Technology and an HT Technology enabled chipset, BIOS and operating system. Performance will vary depending on the specific hardware and software you use. See <http://www.intel.com/info/hyperthreading/> for more information including details on which processors support HT Technology.

<sup>2</sup> Desktop Boards D925XECV2 and D925XEBC2 were designed to support up to 4-GB total system memory. 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/>

\*\* Intel® Audio Studio combines Intel® High Definition Audio hardware with Sonic focus\* audio refinements.

\*\*\* Intel® Desktop Utilities includes: hardware monitoring, Diskeeper\* Lite defragmentation, NTI Backup Now\*, StressTest\*, Symantec\* Security Check.

† Available by Internet download only. Third-party user registration required.

†† Dolby is a registered trademark of Dolby Laboratories.

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Intel® Desktop Boards D925XECV2 and D925XEBC2 may contain design defects or errors known as errata, which may cause the product to deviate from published specifications. Current characterized errata are available on request.

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