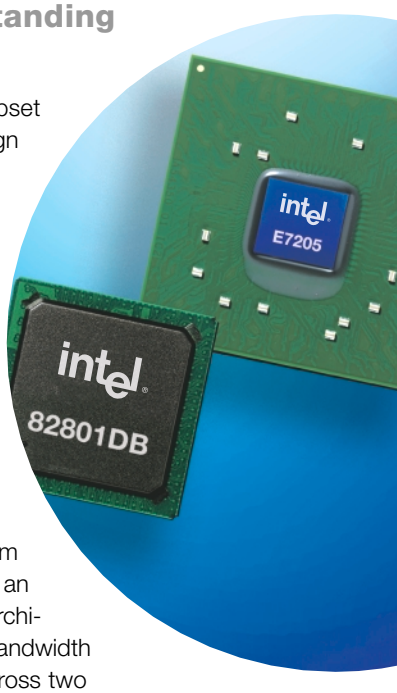
Product Brief

There is a platform today which delivers AGP 8X graphics and outstanding performance for demanding workstation applications

The Intel® E7205 Chipset combines next-generation graphics and dual-channel DDR memory with the latest Intel® Pentium® 4 Processor to deliver outstanding platform performance.

The E7205 chipset represents the next step in entry workstation chipset technology for the Intel Pentium 4 processor. The E7205 chipset design provides a compelling transition to next-generation workstation-class technologies by delivering support for Hyper-Threading Technology along with maximized system bus, memory, and graphics bandwidth.



Intel® E7205 Chipset

Advanced Technology and Next-Generation Graphics

The E7205 chipset combines two core components which were designed, optimized, and validated for the Pentium 4 processor with Intel® NetBurst™ microarchitecture.

The E7205 Chipset Memory Controller Hub (MCH) is the central hub for all data passing through core system elements, such as: the Pentium 4 processor via the system bus interface; the memory subsystem through a dual-channel memory interface; the graphics subsystem over an AGP 8X interface; and the I/O controller hub via Intel® Hub Interface architecture. The E7205 chipset delivers the performance of 4.3 GB/s of bandwidth across the 533 MHz system bus and up to 4.3 GB/s of bandwidth across two high-performance Double Data Rate (DDR) SDRAM memory channels. The high data throughput of these interfaces augment the direct attach AGP 8X interface, which enables up to 2.1 GB/s of graphics data. Connectivity to advanced networking components and peripherals is provided via the Intel® 82801DB I/O Controller Hub. Also, the E7205 chipset supports Hyper-Threading Technology. Together, these features deliver a balanced, high throughput, system for demanding workstation-class applications.

The Intel 82801DB I/O Controller Hub (ICH4) connects to the MCH through a point-to-point Hub Interface 1.5 connection. The Intel® ICH4 provides 32-bit PCI connectivity to Intel® Gigabit Ethernet adapters. Additionally, the ICH4 includes integration for up to six ports of Hi-Speed USB 2.0; offering greater bandwidth for I/O-intensive peripherals. New power management and audio capabilities are also incorporated into this component.

Features that Maximize Performance and Balance the Platform

- Pentium 4 processor with 512KB L2 cache and a 533 MHz system bus provides up to 4.3 GB/s of bandwidth between the processor and the chipset.
- Dual DDR266 memory channels provide up to 4.3 GB/s of memory bandwidth, which exactly matches the system bus bandwidth.
- The direct attach AGP 8X port provides 2.1 GB/s of graphics bandwidth directly out of the MCH.
- The ICH4 provides advanced features, including Hi-Speed USB 2.0.

Features	Benefits
Intel® Pentium® 4 processor with Intel® NetBurst™ microarchitecture	Supports advanced CPU features and the fastest frequencies. Increases system responsiveness.
533 MHz System Bus	Delivers 4.3 GB/s of system bus bandwidth for increased responsiveness.
Dual-channel DDR266 Memory	Provides 4.3 GB/s of memory bandwidth for balanced performance on the Intel Pentium 4 processor-based platform.
APG 8X Interface	Next-generation graphics interface, delivering 2.1 GB/s of graphics bandwidth directly from the MCH, for use with the most advanced AGP 8X graphics cards.
Memory ECC	Memory error correction code for greater reliability.
Intel® Hub Architecture	Dedicated data paths deliver error protection and maximum bandwidth for I/O-intensive applications.
Integrated Hi-Speed USB 2.0	Six ports offer up to 40 times greater bandwidth over the original USB 1.1 for the most demanding I/O peripherals.
Alert on LAN* 2.0	Emits an alert in case of software failures or system intrusion, even when the O/S is not present or the system is suspended.
Ultra ATA/100	Takes advantage of the latest industry innovations in HDD features and performance.
Intel® Application Accelerator	Software that helps accelerate boot times and application launch time.
AC'97 controller	Supports Dolby* Digital 5.1 Surround Sound, delivering up to six channels of enhanced sound quality.
Low-power sleep mode	Saves energy.

Products	Package
Intel® Pentium® 4 Processor	478 Flip Chip-Pin Grid Array (FC-PGA)
Intel® E7205 Memory Controller Hub (MCH)	1005 Flip Chip-Ball Grid Array (FC-BGA)
Intel® 82801DB I/O Controller Hub	421 Micro Ball Grid Array (µBGA*)

Intel Access

Products Web Site	http://www.intel.com/products/server
Intel® Chipsets Home Page	http://www.intel.com/products/server/chipsets
Intel® Pentium® 4 Processor	http://www.intel.com/design/pentium4
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