

Intel® 810 Chipset

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Product Overview

Intel has developed technology that enhances the performance and exceptional value of the Intel® Celeron™ and Intel® Pentium® III processor-powered PCs. Built on the strong foundation of Intel® 440BX AGPset technology, the Intel® 810 chipset has re-engineered the PC platform, providing next-generation features and great graphics performance at a lower cost.

Richer, more robust 2D and 3D graphics are optimized thanks to an integrated chipset design that utilizes second-generation Intel® Graphics Technology. This integrated chipset offers innovative features with compelling performance while lowering overall system costs through smart integration.

A New Design with Big Benefits

At the core of the 810 chipset is a memory controller with built-in graphics technology. The 82810 optimizes system memory arbitration, similar to AGP technology, resulting in a more responsive and cost-effective system.

- The 82810 *Graphics Memory Controller Hub (GMCH)* features Intel® graphics technology and software drivers, using Direct AGP (integrated AGP) to create vivid 2D and 3D effects and images. The 82810 features integrated Hardware Motion Compensation to improve soft DVD video quality and a digital video out port that enables connection to traditional TVs or the new space-saving digital flat-panel displays.
- *Intel® Dynamic Video Memory Technology (DVMT)* is an architecture that offers breakthrough performance with integrated graphics which provides efficient memory utilization and Direct AGP. The system OS uses the Intel® software drivers and intelligent memory arbiter to support richer graphics applications.
- *The System Manageability Bus* allows networking equipment to monitor the 810 chipset platform. Using ACPI specifications, the system manageability function enables low-power sleep mode and conserves energy when the system is idle.



- The 82801 *I/O Controller Hub (ICH)* employs the Hub Architecture to make a direct connection from the graphics and memory to the integrated AC97 controller, the IDE controllers, dual USB ports, and PCI add-in cards.

The Intel® Hub Architecture provides twice the bandwidth of the PCI bus at 266 MB per second. This allows a wider flow of rich information from the I/O controller to the memory controller, with optimized arbitration rules allowing more functions to run concurrently, enabling more lifelike audio and video.

- *The Integrated Audio-Codec 97* controller enables software audio and modem by using the processor to run sound and modem software. By reusing existing system resources, this feature adds flexibility, improves sound quality, and lowers the system BOM cost by eliminating components.

Intel's 810 chipset re-engineers the PC by providing a platform that will bring next-generation features and great graphics value performance to the PC while reducing overall platform cost.



Features

- Intel® Hub Architecture
- Integrated graphics/AC97 controller
- Intel® 3D graphics with Direct AGP
- Optional 4 MB of dedicated display cache video memory
- Low-power sleep modes
- One software driver code base
- Digital Video Out port
- Soft DVD MPEG-2* playback with Hardware Motion Compensation
- 66- and 100-MHz System Bus capable
- 2 USB ports
- Multiple Intel® 810 chipset SKUs for performance and value PC price points

Benefits

- Increased I/O performance allows better concurrency for richer multimedia applications
- BOM cost savings, more flexibility, and better audio quality
- Vivid 2D and 3D graphics, BOM cost savings, efficient use of system memory for graphics, O/S, and applications
- Enables SKU differentiation with increased 3D graphics performance improvement over Direct AGP
- Energy savings
- More stable platform, higher quality graphics, reduced OEM support costs
- Allows connection of traditional TV or new digital flat-panel displays; compatible with DVI specification
- Lifelike video and audio
- Flexibility for performance headroom when used with Intel® Celeron™ and Pentium® processors
- Plug and Play
- Lower platform and manufacturing costs with single motherboard design

Product

- 82810 Graphics Memory Controller Hub
- 82801 Integrated Controller Hub

Package

- 421 Ball Grid Array (BGA)
- 241 Ball Grid Array (BGA)

Intel Access

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