## Intel<sup>®</sup> 810E Chipset

#### Product Overview

In the Intel<sup>®</sup> 810 chipset, Intel developed technology that enhances the performance and exceptional value of the Intel<sup>®</sup> Celeron<sup>™</sup> and Intel<sup>®</sup> Pentium<sup>®</sup> processor-based PC. The Intel<sup>®</sup> 810E chipset integrates the innovative features of the 810 chipset with performance enhancements and added flexibility.

The 810E chipset embraces the stability of the 810 chipset by reuse of solid integrated technology. The 810E chipset provides flexibility to support all Intel® processors including those with the recent 133 MHz system bus available as well as previous Intel processors which support both 66 and 100 MHz system bus. The 810E chipset features Intel® Graphics Technology which further enhances performance boost by supporting both 133 and 100 MHz local display cache. The 810E chipset also utilizes the 810 chipset stable graphics software drivers and support. The 810E chipset provides stability and value with Intel graphics performance and smart integration.

#### Performance Benefits at a Value Price

The 810E chipset is built on Intel's 800 chipset series integrated design technology, and offers all the features and benefits of the 810 chipset. Like the 810 chipset, the 810E chipset offers integrated graphics, Intel® Hub Architecture, direct AGP and AC97 audio controller.

The Intel 810E chipset features a unique internal gear arbitration, allowing it to run seamlessly with 66 MHz, 100 MHz and 133 MHz processor busses. Validated and tuned for both Celeron and Pentium III processors, the Intel 810E chipset offers a one-stop solution with a single, flexible motherboard, for Intel's value and mainstream processors.

#### An Integrated Design With Big Benefits

At the core of the 810E chipset is a memory controller with built-in graphics technology. By optimizing crucial memory arbitration, the 810E chipset is a more responsive and cost-effective system.



The 82810E 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 82810E features integrated Hardware Motion Compensation to improve soft DVD video quality and a digital video out port that enables connection traditional TVs or the new space-saving digital flat-panel displays.

- Intel® Dynamic Video Memory Technology (DVMT) is an architecture that offers breakthrough integrated graphics performance with more efficient memory utilization and direct AGP. The system O/S uses the Intel software drivers and intelligent memory arbiter to support richer graphics applications.
- The System Manageability Bus allows networking equipment to monitor the 810E 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 Controller Hub Architecture which makes a direct connection from the graphics and memory to integrated AC97 controller, the IDE controllers, dual USB ports and PCI add-in cards. At 266 MB per second, the Hub Architecture provides twice the bandwidth of the PCI bus.
- The Integrated Audio-Codec 97 controller enables software audio by using the processor to power integrated sound and modem software. Reusing existing system resources adds flexibility, improves sound quality and lowers system BOM costs by eliminating components.

The 810E chipset brings next generation processor technology to the mainstream with added flexibility and performance at value pricing.

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Features	Benefits
<ul> <li>Validated with Intel<sup>®</sup> Pentium<sup>®</sup> III processor and Intel<sup>®</sup> Celeron<sup>®</sup> processor</li> </ul>	<ul> <li>Brings next generation processor technology to the mainstream PC</li> </ul>
■ 133/100/66 MHz system bus capability	■ Flexibility, one SKU solution for value and mainstream PC
133/100 MHz display cache	■ Enhanced 3D and 2D performance
New graphics driver	<ul> <li>Enhanced 3D with a 133 MHz display cache, provides Linux Operating System support</li> </ul>
■ Intel <sup>®</sup> Hub Architecture	<ul> <li>Optimized driver supports Intel 810 and 810E chipsets. Increase in I/O bus bandwidth allows better concurrency for rich multimedia applications</li> </ul>
Integrated graphics/AC97 controller	<ul> <li>BOM cost savings, more flexibility and better audio quality</li> </ul>
Intel <sup>®</sup> Graphics Technology— 3D graphics with AGP	Vivid 2D and 3D graphics, BOM cost savings, efficient use of system memory for graphics, O/S and applications
Digital Video Output	<ul> <li>Allows connection of traditional TV or new digital flat- panel displays; compatible with DVI specification</li> </ul>
Soft DVD MPEG-2* playback with Hardware Motion Compensation	■ Lifelike video and audio
2 USB ports	■ Plug and Play
Low power sleep modes	■ Energy savings
One software driver code base	<ul> <li>More stable platform, higher quality graphics, reduced OEM support costs</li> </ul>

Product	Package
82810E Memory Controller Hub	421 Ball Grid Array (BGA)
82801 Integrated Controller Hub	241 Ball Grid Array (BGA)

### Intel Access

Developer's Site	http://developer.intel.com/
Intel® Chipsets Home Page	http://developer.intel.com/design/chipsets/
Other Intel Support:	http://developer.intel.com/design/litcentr/
Intel Literature Center	(800) 548-4725 7 a.m. to 7 p.m. CST (U.S. and Canada) International locations please contact your local sales office.
General Information Hotline	(800) 628-8686 or (916) 356-3104 5 a.m. to 5 p.m. PST



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