Intel® 810E2 Chipset for Applied Computing

Product Highlights

- Flexible processor support ranging from the Intel® Celeron® processor at 300 MHz to the Intel® Pentium® III processor at 866 MHz and beyond running on 66 MHz, 100 MHz or 133 MHz PSB configurations

- Increased I/O bus bandwidth through the use of Intel® Hub Architecture which allows better concurrency for next-generation applied computing applications

- Support for 100 MHz SDRAM enabling cost effective high volume memory

- 512 MB maximum memory

- Low power sleep mode for energy savings

- Four USB ports with two controllers

- Support for ATA/100 enabling the fastest data and file transfer

- Alert on LAN 1.0

- Integrated LAN connect interface for flexible cost-effective network solutions from home PNA to 10/100 Mbps Ethernet with LAN manageability

- Intel 3D graphics with Direct AGP for vivid 2D and 3D graphics

- Support for an add-in Display Cache of up to 4 MB to boost performance over similar systems without a display cache

- AC'97 Controller for better audio quality with up to six channels and surround sound capability

- Digital Video Output which allows for connection of traditional TV or new digital flat-panel displays; compatible with the DVI specification

- Soft DVD MPEG-2 playback with HW motion compensation for lifelike audio and video

Product Overview

With the Intel® 810E2 chipset, Intel has extended its innovative technology that enhances the performance and exceptional value of applied computing platform solutions which utilize the Intel Pentium III and Celeron processors. The Intel 810E2 chipset supports both .13 micron and .18 micron process technology for the Pentium III and Celeron processors, 370-pin, in the FC-PGA and FC-PGA2 packages (Flip-Chip Pin Grid Array with integrated heat spreader). The chipsets include a processor side bus that automatically scales from 66 to 133 MHz based on the processor used. This complete platform solution utilizes a single driver featuring full backwards compatibility for increased quality and reliability. The performance of Intel's 3D graphics with Direct AGP is easily upgraded by adding a 4 MB Display Cache.

Intel's smart graphics integration makes the Intel 810E2 chipset an intelligent solution for today's complex applied computing applications. The smart integration in the Intel 810E2 chipset design is extended to featured LAN capability as well as four USB ports. By combining internal graphics, LAN, and support for four USB ports with the ability to take advantage of soft audio/modem technology, the Intel 810E2 chipset delivers an ideal solution for new innovative form factors. Further flexibility can be achieved by taking advantage of the Communication and Network Riser (CNR) card option, which allows for audio, modem, and/or LAN configuration on a single base board design.
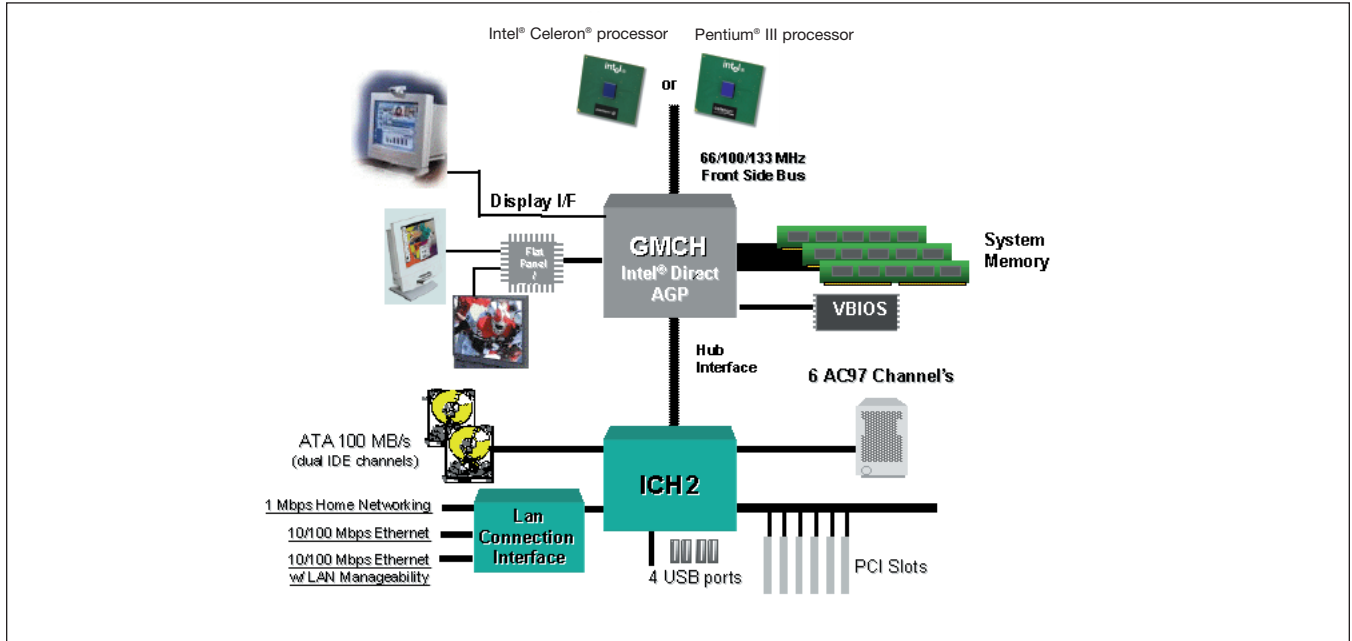
Built on next generation chipset technology, the Intel 810E2 chipset offers the performance, stability, and reliability customers require for applied computing applications. The Intel 810E2 chipset and drivers reduce support costs, validation costs, and offer a variety of sell-up opportunities while still providing flexibility and performance at value pricing.

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INTEL® 810E2 CHIPSET LINECARD

PRODUCT	PRODUCT CODE	PACKAGE	FEATURES
810E2 Graphics and AGP Memory Controller Hub (GMCH)	FW82810E	421 BGA	- Intel Accelerated Hub Architecture - Intel 3D graphics with Direct AGP - Overall BOM cost savings - Optional 4 MB of dedicated display cache video memory (100 or 133 MHz)
I/O Control Hub 2 (for 810E2) (ICH2)	FW82801BA	360 EBGA	- Direct connection to the GMCH with Intel's Accelerated Hub Architecture - Supports 32-bit PCI - IDE Controllers with ATA100 - Four USB ports - AC'97 controller with 6 Channel Sound - Integrated MAC
Firmware Hub (4 MB FWH) *Must be purchased as a separate component. Contact your local Intel field sales representative for product availability.*	E82802AB N82802AB	TSOP PLCC	- System BIOS and video BIOS - Intel Random Number Generator (RNG) for stronger encryption, digital signing, and security protocols
Firmware Hub (8 MB FWH) *Must be purchased as a separate component.*	E82802AC N82802AC	TSOP PLCC	- System BIOS and video BIOS - Intel Random Number Generator (RNG) for stronger encryption, digital signing, and security protocols

Intel® 810E2 Chipset Block Diagram

Intel Access

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Intel Embedded Chipsets	developer.intel.com/design/chipsets/embedded
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General Information Hotline	(800) 628-8686 or (916) 356-3104 5 a.m. to 5 p.m. PST

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