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Intel® 852GM Chipset for Embedded Computing

Intel in Communications

Product Overview

The Intel® 852GM Chipset for Embedded Computing is an optimized integrated graphics solution with a 400 MHz system bus and integrated 32-bit 3D core at 133 MHz. It features a low-power design, supports the Mobile Intel® Celeron® processor and Intel Celeron processor, and supports up to 1 GB of DDR 200/266 system memory.

The Intel 852GM chipset is part of Intel's comprehensive validation process that enables fast deployment of next-generation platforms to maximize competitive advantage while minimizing development risks.

Product Highlights

- The Intel 852GM chipset is designed, validated, and optimized for the Mobile Intel Celeron processor and Intel Celeron processor with Intel® NetBurst® microarchitecture

- 400 MHz system bus delivers a high-bandwidth connection between the processor and the platform

- Supports integrated graphics utilizing Intel® Extreme Graphics 2 technology

- Advanced packaging technology and industry-leading electrical design innovations deliver long-term system reliability over wide operating conditions

- Three USB host controllers provide high-performance peripherals with 480 Mbps of bandwidth, while enabling support for up to six USB 2.0 ports. This results in a significant increase over previous integrated 1-4 port hubs at 12 Mbps

- The latest AC '97 implementation delivers 20-bit audio for enhanced sound quality and full surround sound capability. Integrated audio solutions continue to enjoy success as a very cost-effective, yet high-performance solution

- LAN Connect Interface (LCI) provides flexible network solutions such as 10/100 Mbps Ethernet and 10/100 Mbps Ethernet with LAN manageability

- Dual Ultra ATA/100 controllers, coupled with the Intel® Application Accelerator – a performance software package – support faster IDE transfers to storage devices

run
Better, faster and further.

- Intel Application Accelerator software provides additional performance over native ATA drivers by improving I/O transfer rates and enabling faster O/S load time, resulting in accelerated boot times

- Communication and Network Riser (CNR) offers flexibility in system configuration with a baseline feature set that can be upgraded with an audio card, modem card, or network card

- Embedded lifecycle support

- Integrated graphics

Display

- Analog display support

- Dual independent pipe support
  - Concurrent: different images and native display timings on each display device
  - Simultaneous: same images and native display timings on each display device

- DVO (DVOB and DVOC) support
  - Digital video out ports DVOB and DVOC with 165 MHz dot clock on each 12-bit interface; two 12-bit channels can be combined to form one dual-channel 24-bit interface with an effective dot clock of 330 MHz
  - Compliant with DVI Specification 1.0

- Dedicated Local Flat Panel (LFP) LVDS interface

Internal Graphics Features

- Core frequency
  - Display core frequency of 133 MHz
  - Render core frequency of 133 MHz

Intel® Embedded Graphics Driver

- Graphics interface support
  - GDI and DirectX* DirectDraw* with overlay for Windows* XP, Windows* 2000, and Windows* Embedded XP
  - XFree86*, XAA, and Xv for Linux*

- Multi-monitor support
  - Multiple programmable configurations
  - Dual independent display
  - DVO device support/TV-Out

- Dynamic display-mode support
  - User definable and extensible

- Embedded video BIOS
  - Common port interface support
  - Full VGA compatibility

Intel® 852GM Chipset for Embedded Computing

Product	Product Code	Package	Features
852GM Memory Controller Hub (GMCH)	RG82852GM	732 micro-FC-BGA	■ 400 MHz system bus ■ DDR 200/266 ■ Integrated graphics support
I/O Controller Hub 4	FW82801DB	421 micro-BGA	■ Direct connection to MCH with Intel® Accelerated Hub Architecture ■ Supports 32-bit PCI ■ IDE controllers with ATA/100 ■ Six USB ports with USB 2.0 support ■ AC '97 controller with 20-bit audio support ■ Integrated LAN connect interface

Intel Access

Developer's Site:	developer.intel.com
Embedded Intel Architecture Homepage:	www.intel.com/design/intarch
Intel Technical Documentation Center:	www.intel.com/go/techdoc
General Information Hotline:	(800) 628-8686 or (916) 356-3104 5 a.m. to 5 p.m. PST