

Product Brief

Intel® 915GV Express Chipset

Embedded Computing



Intel® 915GV Express Chipset for Embedded Computing

Product Overview

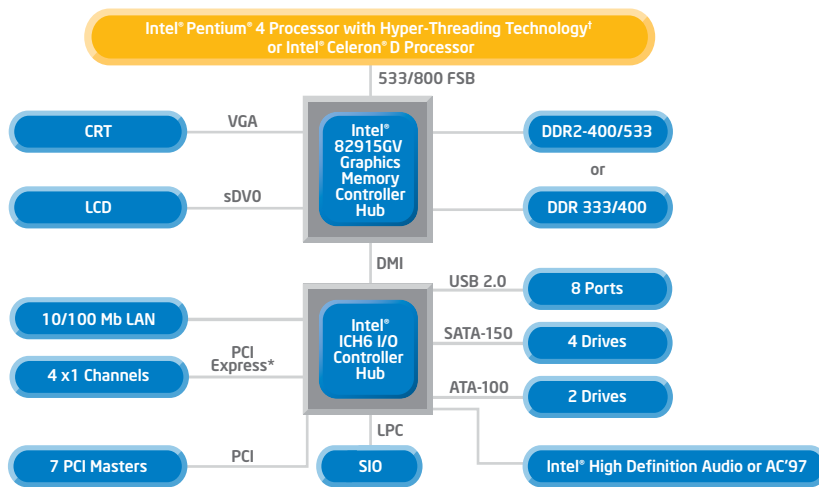
The Intel® 915GV Express chipset delivers innovative features for interactive client, communications, and embedded computing solutions. Designed for, and validated with Intel® Pentium® 4 processors 551^A and 651^A with Hyper-Threading Technology¹ (HT Technology), and Intel® Celeron® D processors 352^A and 341^A – all with Intel® Extended Memory 64 Technology* (Intel® EM64T) – this chipset introduces a new generation of scalable performance and value.

The Intel 915GV Express chipset consists of the Intel® 82915GV Graphics and Memory Controller Hub (GMCH) and the Intel® ICH6 I/O Controller Hub (ICH). Together they provide superior graphics with outstanding memory performance and high-speed I/O. This chipset also supports present and future mainstream memory technologies, and next-generation I/O capability including PCI Express* and Intel® High Definition Audio.

Product Highlights

- Designed, validated and optimized for Intel Pentium 4 processors 551 and 651 with HT Technology, and Intel Celeron D processors 352 and 341, all with Intel EM64T and LGA-775 packaging
- 533 MHz and 800 MHz system bus provides scalability to the highest performance Intel Pentium 4 processors with HT Technology and Intel Celeron D processors
- Support for dual-channel DDR2-400/533 SDRAM or DDR 333/400 SDRAM
- Integrated analog VGA and sDVO outputs allow maximum flexibility when making display decisions
- Intel® Graphics Media Accelerator 900 (Intel® GMA 900) provides superior graphics in an integrated package
- Direct Media Interface (DMI) delivers 2.0 GB/s concurrent bandwidth to maximize throughput between core chipset components
- Seven PCI masters provide generous system expansion capability
- Four x1 PCI Express channels for high-speed I/O
- Support for four SATA-150 (serial) plus two ATA-100 (parallel) hard disk drives for high-speed storage
- Integrated LAN controller provides direct connection to Platform LAN Connect (PLC) components
- Eight integrated USB 2.0 ports
- Intel High Definition Audio features eight independent DMA audio engines or AC'97
- Embedded lifecycle support
- Along with a strong ecosystem of hardware and software vendors, including members of the Intel® Communications Alliance (intel.com/go/ica), Intel helps cost-effectively meet development challenges and speed time-to-market





Intel® 915GM Express Chipset for Embedded Computing

Product	Product Code	Package	Features
Intel® 82915GV Graphics and Memory Controller Hub	NG82915GV	1210 FC-BGA	<ul style="list-style-type: none"> 533/800 MHz system bus DDR2-400/533 or DDR 333/400 SDRAM Intel® GMA 900 graphics High-bandwidth DMI
Intel® ICH6 I/O Controller Hub	Fw82801FB	609 µBGA	<ul style="list-style-type: none"> Seven PCI masters and four PCI Express* x1 channels Serial and Parallel ATA interfaces USB 2.0 (8 ports) Intel® High Definition Audio or AC'97

¹Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See http://www.intel.com/products/processor_number for details.

¹Hyper-Threading Technology requires a computer system with an Intel® Pentium® 4 processor supporting Hyper-Threading Technology and an HT Technology-enabled chipset, BIOS and operating system. Performance will vary depending on the specific hardware and software you use. See <http://www.intel.com/info/hyperthreading> for more information including details on which processors support HT Technology.

^{*}Intel® EM64T requires a computer system with a processor, chipset, BIOS, operating system, device drivers and applications enabled for Intel EM64T. Processor will not operate (including 32-bit operation) without an Intel EM64T-enabled BIOS. Performance will vary depending on your hardware and software configurations. See www.intel.com/info/em64t for more information including details on which processors support Intel® EM64T or consult with your system vendor for more information.

Intel Access

Embedded Intel® Architecture Home Page: intel.com/design/intarch
 Developer's Site: developer.intel.com
 Intel in Communications: intel.com/communications
 General Information Hotline: (800) 628-8686 or (916) 356-3104 5 a.m. to 5 p.m. PST
 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.

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL® PRODUCTS. EXCEPT AS PROVIDED IN INTEL'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, INTEL ASSUMES NO LIABILITY WHATSOEVER, AND INTEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY RELATING TO SALE AND/OR USE OF INTEL PRODUCTS, INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT, OR OTHER INTELLECTUAL PROPERTY RIGHT. INTEL MAY MAKE CHANGES TO SPECIFICATIONS, PRODUCT DESCRIPTIONS, AND PLANS AT ANY TIME, WITHOUT NOTICE.

Intel Corporation may have patents or pending patent applications, trademarks, copyrights, or other intellectual property rights that relate to the presented subject matter. The furnishing of documents and other materials and information does not provide any license, express or implied, by estoppel or otherwise, to any such patents, trademarks, copyrights, or other intellectual property rights. Intel products are not intended for use in medical, life saving, life sustaining, critical control or safety systems, or in nuclear facility applications. The Intel® 915GM Express chipset may contain design defects or errors known as errata, which may cause the product to deviate from published specifications. Current characterized errata are available upon request.

Copyright © 2006 Intel Corporation. All rights reserved.

Intel, the Intel logo, Intel. Leap ahead., Intel. Leap ahead. logo, Pentium, and Celeron are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

^{*}Other names and brands may be claimed as the property of others.

