

Product Brief

Intel® 915GME
Express Chipset

Consumer Electronics

Intel® 915GME Express Chipset Development Platform for Connected Consumer Electronics Devices



Connected applications, services and media are coming to consumer electronics devices. The Intel® 915GME Express Chipset Development Platform provides the components you need to add Intel® architecture processing performance and IP networking capability to CE devices.

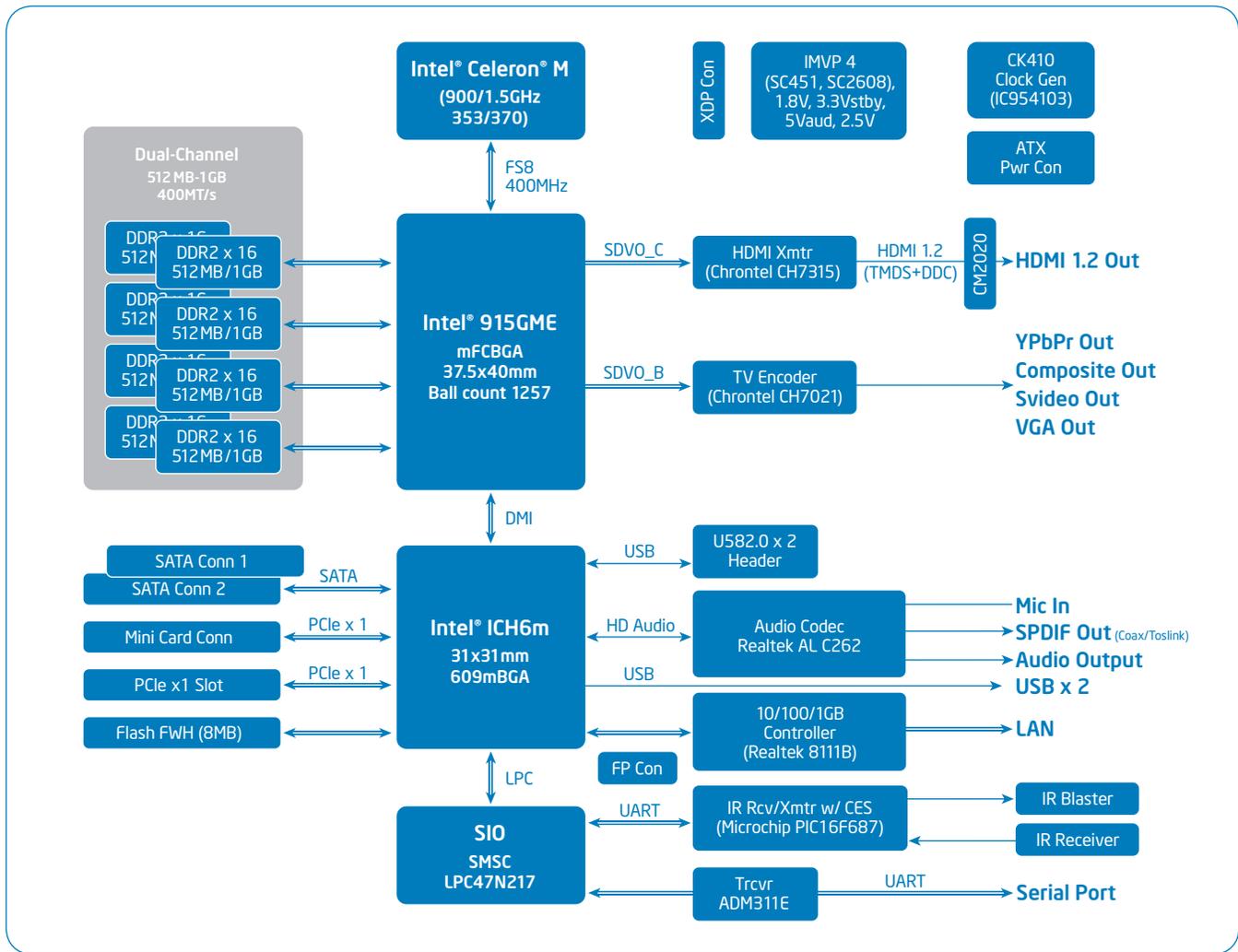
The Intel 915GME Express chipset is a key building block for connected consumer electronics (CE) platforms, including modular digital TV sub-systems, IP digital set top boxes, “set back” boxes for Internet-based services and connected digital media recorders (DMRs) designed to support a variety of emerging connected usage models.

The chipset includes a 400 MHz system bus to support the Intel® Celeron® M 900MHz and 1.5MHz processors, an internal 2D/3D graphics controller and a memory controller that supports up to 2GB of DDR2 SDRAM. The controller supports dual-channel, single-channel and asymmetric modes.

Intel® CE 915GME Express Chipset

Platform Features	Benefits
Intel® Celeron® M 900MHz processor and Intel® Celeron® M 1.5GHz processor with 400MHz processor bus	<ul style="list-style-type: none"> High performance to support next-generation connected applications and services
SDVO port	<ul style="list-style-type: none"> Supports third-party SDVO compliant devices including DVI, TV-Encoder, LVDS, and HDMI 1.2
Internal graphics controller	<ul style="list-style-type: none"> 2D/3D graphics support for advanced user interfaces
Direct Media Interface (DMI)	<ul style="list-style-type: none"> High-bandwidth chip-to-chip interconnect for optimum system-level performance
Multiple I/O subsystem interfaces	<ul style="list-style-type: none"> Flexible platform configurations
Support for up to 2GB of 400MHz DDR2 memory	<ul style="list-style-type: none"> Memory bandwidth for optimum system-level performance

Block Diagram



The Intel 915GME Express Chipset Development Platform helps accelerate designs for a wide variety of connected CE products. By choosing Intel architecture to design IP-DSTBs, DMRs, or other media-centric products, manufacturers can adapt to the rapidly changing requirements of service providers who need to provide new generations of compelling and differentiated services.

The Intel 915GME Chipset Development Platform utilizes the following Intel components:

- Intel Celeron M 1.5GHz processor
- Intel 915GME Express Chipset Mobile Graphics Memory Controller Hub (GMCH)
- Intel® Mobile I/O Controller Hub 6-M (ICH6-M) Chipset

To achieve lower power and to provide a fanless thermal solution, the Intel Celeron M 900MHz processor can be used as an alternative to the Intel Celeron M 1.5GHz processor. When combined with an operating system, BIOS, and application software, the platform enables consumer electronics device manufacturers to meet aggressive time-to-market objectives. The Intel architecture software environment is familiar to most programmers, facilitating the development of new applications and services. The Intel 915GME Express Development Platform is validated with the Microsoft Windows® XP Embedded operating system and with the Linux® operating system.

Development Platform Highlights

- CPU (onboard 479-ball uFCBGA)
 - Intel Celeron M 1.5GHz processor (default on board)
 - Intel Celeron M 900MHz processor (optional)
- Memory supported
 - Supports two DDR2 SDRAM channels
 - Up to 2GB memory support
- Chipset
 - Intel 915GME Express Chipset Mobile Graphics Memory Controller Hub (GMCH)
 - Intel Mobile I/O Controller Hub 6-M (ICH6-M) Chipset
 - Four x1 PCI Express slots
 - Integrated serial ATA host controller
 - Serial digital video out (SDVO) ports
- sDVO-B for analog SD/HD encoder
- sDVO-C for HDMI transmitter
- Video
 - HDMI transmitter
 - TV encoder
- AC'97 2.3 controller delivers 20-bit audio
 - Supports up to 3 external codecs
 - Up to 6 channels of PCM audio output
- BIOS
 - General Software* BIOS in 8Mbit Flash ROM
- Other Components
 - 10/100/1000 Ethernet controller
 - USB 1.1 and 2.0 host controllers
 - Serial port transceiver
 - SIO
 - IR/receiver/transmitter
- Board Size
 - 6.69 inch x 6.69 inch (17cm x 17cm)
- Operating temperature
 - 0°C~45°C

Designed to work with Intel® Processors

The Intel 915GME Express chipset supports both the Intel Celeron M 900MHz processor and the Intel Celeron M 1.5GHz processor. Platforms based on the Intel Celeron M 900MHz processor are suitable for a passive (fan-less) thermal solution.

High-Performance Building Blocks

The Intel 915GME Express chipset supports a high-performance integrated graphics engine and DDR2 system memory that provides an increase in memory bandwidth over previous generations of Intel building blocks used in dedicated consumer electronics designs.

SDVO with HDMI Support

The serial digital video out (SDVO) interface of the GMCH represents significant enhancements over the digital video out (DVO) port interface supported on previous chipsets. Rather than providing data in a parallel format, SDVO serially transmits digital display data to the SDVO ports and is based on PCI Express electricals. The SDVO interface can support a wide variety of third-party SDVO compliant devices including DVI, TV-Encoder, LVDS, and HDMI 1.2.

Intel® 915GME Chipset Development Platform Design Kits

The Intel® 915GME Express Development Platform Design Kit showcases the capabilities of the Intel 915GME Express chipset and enables you to overcome design constraints that can impact the development of connected CE devices.

The development platform provides the processing performance, headroom and networking support that enable service providers to deploy new generations of demanding applications and IP services on a broad range of CE products, without replacement of the client device.

Kit contents include:

- Development Platform including the Intel 915GME main board with Intel Celeron M 1.5GHz processor on board and active heat sinks
- Power supply adapter cable
- Reference BIOS image from General Software (FWH installed on board)
- Product documentation:
 - Customer letter
 - Safety letter
 - Evaluation license agreement
- Operating Systems (Microsoft® Windows® XP Embedded and Linux®) are distributed online.

For information on how to obtain the Intel 915GME Development Platform kit, contact your Intel representative.

For more information, visit the Intel Consumer Electronics home page at: www.intel.com/go/consumerelectronics

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