

Product Brief

Development Kit

Embedded Computing



Intel® Core™2 Duo Processor T7500 and Mobile Intel® GME965 Express Chipset Development Kit

Product Overview

The Intel® Core™2 Duo processor T7500¹ and Mobile Intel® GME965 Express chipset development kit provides an excellent choice for developers of a wide range of low-power embedded applications such as interactive clients, gaming, medical and print imaging platforms, and industrial automation equipment. This and other Intel® dual-core platforms combine the benefits of two high-performance execution cores with intelligent power management features to deliver significantly greater performance-per-watt over previous Intel® processors.

The Mobile Intel® GME965 Express chipset provides excellent flexibility for developers of embedded applications by offering superb graphics and I/O bandwidth. Features include an integrated 32-bit 3D graphics engine based on Mobile Intel® Graphics Media Accelerator X3100, 533/800 MHz front-side bus (FSB), up to 4 GB of 533/667 MHz DDR2 SODIMM system memory, Intel® Active Management Technology¹ (Intel® AMT), and Intel® Matrix Storage Technology.

This and other development kits from Intel provide a fully working system with a range of performance options that can be modified or used immediately for product development. A validated board platform lets software vendors test BIOS and operating system software.



Product Highlights

- Supports the Intel® Core™2 Duo processor T7500 at 2.2 GHz²
- Features the Mobile Intel GME965 Express chipset, consisting of the Intel® 82GME965 Graphics Memory Controller Hub (GMCH) in a μ FCBGA package and Intel® I/O Controller Hub 8-M Enhanced (ICH8-M-Enhanced)
- Supports 533 or 800 MHz FSB
- Supports single- or dual-channel non-ECC 533 MHz or 667 MHz DDR2 SODIMM high-speed system memory (one 256 MB 667 MHz SODIMM included)

Board Peripheral Features

- Mobile Intel Graphics Media Accelerator X3100, Intel® Clear Video Technology, and graphics core speeds up to 500 MHz provide enhanced graphics and 3D rendering performance, along with improved high-definition video playback
- Dual independent display output provides a wealth of options for high-resolution displays
- x16 PCI Express* graphics or a dual-channel Serial Digital Video Out (SDVO) graphics interface support high data throughput for high-end graphics

Board Peripheral Features (continued)

- Direct Media Interface chip interconnect between the GMCH and the ICH can be implemented at x4 or x2 widths, and provides up to 1 GB/s in each direction in full duplex
- USB host controllers provide high-performance peripherals with 480 Mb/s of bandwidth
- Three PCI Express ports configured as x1 ports on the ICH8-M
- LAN connect interface (LCI) provides flexible network solutions such as 10/100/1000 Mb/s Ethernet
- Integrated Serial ATA host controller supports three ports for increased storage capacity
- Intel Matrix Storage Technology provides both Advanced Host Controller Interface (AHCI) and RAID functionality for improved storage speed and data redundancy
- Intel AMT supports asset management capabilities such as remote management of unmanned sites

Included in the Kit

- Development board
- One Intel Core 2 Duo processor T7500 at 2.2 GHz with 4 MB L2 cache on 65nm process in 478-pin µFC-PGA package, installed
- One firmware hub, installed
- One Intel 82GME965 GMCH heat sink, installed
- One type 2032, socketed 3V lithium coin cell battery, installed
- One 256 MB/677 MHz DDR2 SODIMM (200 pin)
- One CPU thermal solution and CPU back plate (not installed)
- Cable kit
- Port 80 add-in card
- User's Manual

Software Overview

The following independent software vendors support the Intel Core 2 Duo processor and Mobile Intel GME965 Express chipset development kit. These include:

- Operating system vendors:
 - Wind River VxWorks*
 - Microsoft Windows*
 - Red Hat Linux*
 - SuSE Linux*
- BIOS vendors:
 - American Megatrends AMIBIOS*
 - General Software Embedded BIOS*
 - Insyde Technology
 - Phoenix Technologies, Ltd.

The chipset is supported by the Intel® Embedded Graphics Drivers and video BIOS, developed specifically for embedded products and applications (developer.intel.com/design/intarch/SWsup/graphics_drivers.htm).

In order to provide customers with a complete development environment in the development kit, Intel works to enable the platform to support customer applications and operating systems. Any software provided in the kit is subject to change without notice. For the most recent updates, please refer to the Web site for embedded Intel® architecture development kits at developer.intel.com/design/intarch/devkits/index.htm.

Ordering Information

IPDCDGME965MZDK

¹ Intel® Active Management Technology requires the platform to have an Intel® AMT-enabled chipset, network hardware and software, as well as connection with a power source and a corporate network connection. With regard to notebooks, Intel AMT may not be available or certain capabilities may be limited over a host OS-based VPN or when connecting wirelessly, on battery power, sleeping, hibernating or powered off. For more information, see www.intel.com/technology/iamt.

² The Intel® Core™2 Duo processor L7500 at 1.6 GHz is also supported. Please contact your Intel Sales Representative for more information.

* Intel® 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.

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