intel.

Intel[®] Pentium[®] M Processor with Intel[®] E7501 Development Kit

Product Overview

The Intel® Pentium® M Processor with Intel® E7501 Development Kit is an excellent choice for developers of embedded applications, particularly within the communications market segment. The Intel® Pentium® M processor utilizes a new microarchitecture to meet the current and future demands of high-performance, low-power embedded computing, while remaining softwarecompatible with previous members of the Intel® microprocessor family. The Intel® Pentium® M processor/Intel® E7501 chipset platform provides the performance and I/O chipset bandwidth to support multiple Gb Ethernet controllers in ultra-dense environments. The platform enables outstanding instruction execution/watt and is ideal for high-performance blades, while providing scalability to the Intel Pentium M processor 745 with 2 MB of L2 Cache.

Product Highlights

Evaluation Board

- Intel Pentium M processor at 1.6 GHz with a 400 MHz Processor System Bus (PSB) and µFC-PGA 478 packaging. Also supports the Intel Pentium M processor 745 with 2 MB of L2 Cache in the same FC-PGA packaging
- Intel® E7501 Memory Controller Hub (MCH) with up to 4 GB of 200 MHz DDR SDRAM
- Intel[®] 82801CA I/O Controller Hub 3 (ICH3-S)
 - ATA/100, 66 or 33
 - Two USB 1.1 ports
- 69000 PCI video
- Built-in POST Code Debugger



Board Peripheral Features

- Super I/O to support floppy, PS/2 mouse and serial/parallel ports
- Two 64-bit PCI/PCI-X Controllers (P64H2)
 - Four additional PCI-X slots
 - Intel[®] 82544El Gb LAN
 - Two SCSI ports
 - One PCI slot

User-Accessible On-Board Connectors

- PS/2 mouse, keyboard, serial/parallel port
- VGA
- Two USB 1.1
- Gb Ethernet
- Two SCSI
- Primary IDE connectors
- Floppy connector
- One 32-bit PCI slot
- Six 64-bit PCI-X slots
- ITP connector
- Four DDR DIMM slots



Intel in Communications

Included in the Kit

- Development board
- CPU thermal solution
- Two 256 MB/200 MHz DDR DIMMs
- Firmware Hub (FWH) pre-programmed with AMI* BIOS
- Custom board stand
- IDE hard drive and cable (pre-programmed with Red Hat Linux*)
- WTX power supply and cable

Development Support

- Schematics and technical documentation
- Bill of materials
- Demonstration software

Product Benefits

The Intel Pentium M Processor with Intel E7501 Development Kit is an evaluation kit with hardware, software, and supporting documentation designed for use in embedded computing applications. This and other development kits from Intel provide a fully working product with a range of performance options that can be modified or used immediately for product development. These kits provide a platform with a validated processor/chipset combination, allowing software vendors to test BIOS and operating system software. With this kit, developers can design on a single board to provide a wide range of price and performance options. This can reduce design and validation efforts, lower the total cost-of-ownership by reducing inventory and manufacturing costs, and facilitate faster time-to-market.

Software Overview

In order to provide customers with a complete development environment, Intel works with Independent Software Vendors (ISVs) to provide supporting evaluation software for its development kits. The software applications in the kit are demonstration copies provided free of charge by the vendors. Included in this kit is Red Hat Linux, loaded on the IDE hard drive.

The software is licensed for evaluation purposes only. Software in the kit is subject to change without notice. For the most recent updates, please refer to the Intel Pentium M Processor with Intel E7501 Development Kit Web site at: http://developer.intel.com/ design/intarch/devkits/pentiumm.htm

Development Kit Ordering Information

EIDPME7501DVKT

Developer's Site:	developer.intel.com
Embedded Intel Architecture Home Page:	developer.intel.com/design/intarch
Intel Technical Documentation Center:	www.intel.com/go/techdoc (800) 548-4725 7 a.m. to 7 p.m. CST (U.S. and Canada)
	International locations please contact your local sales office.
General Information Hotline:	(800) 628-8686 or (916) 356-3104 5 a.m. to 5 p.m. PST

For more information, visit the Intel Web site at: developer.intel.com

UNITED STATES AND CANADA Intel Corporation Robert Noyce Bldg. 2200 Mission College Blvd. P.O. Box 58119 Santa Clara, CA 95052-8119 USA

Intel Access

EUROPE Intel Corporation (UK) Ltd. Pipers Way Swindon Wiltshire SN3 1RJ UK

Printed in USA.

ASIA-PACIFIC Intel Semiconductor Ltd. 32/F Two Pacific Place 88 Queensway, Central Hong Kong, SAR JAPAN Intel Kabushiki Kaisha P.O. Box 115 Tsukuba-gakuen 5-6 Tokodai, Tsukuba-shi Ibaraki-ken 305 Japan SOUTH AMERICA Intel Semicondutores do Brazil Rue Florida, 1703-2 and CJ22 CEP 04565-001 Sao Paulo-SP Brazil

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. 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 products are not intended for use in medical, life saving, or life sustaining applications. Intel may make changes to specifications and product descriptions at any time, without notice.

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

Copyright © 2004 Intel Corporation. All rights reserved.

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

```
0504/0CG/DC/XX/PDF
```