

Product Brief

Development Kit

Embedded Computing



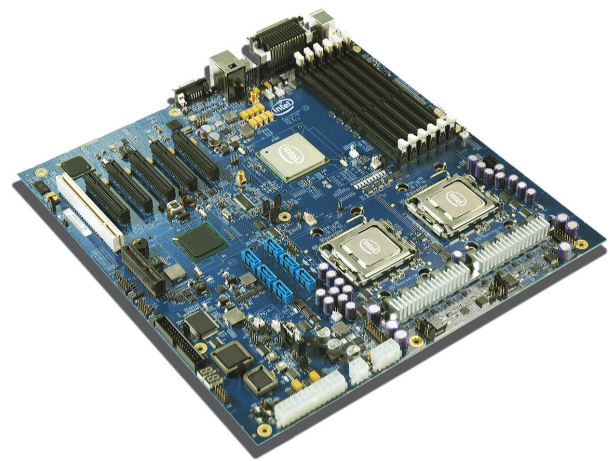
Quad-Core and Dual-Core Intel® Xeon® Processor 5000 Sequence and Intel® 5100 Memory Controller Hub Chipset Development Kit

Product Overview

The Quad-Core and Dual-Core Intel® Xeon® processor 5000^A sequence and Intel® 5100 Memory Controller Hub chipset development kit provides compelling performance-per-watt advantages for thermally constrained applications in the storage, communications and embedded market segments. It is ideal for a wide range of applications, such as storage area networks (SANs), network attached storage (NAS), routers, IP-PBX, converged/unified communications platforms, content firewalls, unified threat management (UTM) systems, medical imaging equipment, military signal and image processing, and telecommunications (wireless and wireline) servers – particularly in AdvancedTCA* and similar form factors. This and other quad-core and dual-core Intel® processor-based platforms combine the benefits of multiple high-performance execution cores with intelligent power management features to deliver significantly greater performance-per-watt over previous Intel® processors.

The power-optimized Intel 5100 Memory Controller Hub (MCH) chipset supports development with high-performance, low-power Intel® multi-core processors, allowing bladed and dense bladed system designs to fit within a maximum 200-watt power envelope. Platform power savings is derived from lower thermal design power (TDP) in the MCH, the low-power, next-generation Intel® I/O Controller Hub 9R (Intel® ICH9R), and standard native DDR2 memory 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 two Quad-Core Intel® Xeon® processors L5408 at 2.13 GHz, 1066 MHz front-side bus (FSB)¹
- Intel 5100 MCH chipset, consisting of the Intel® QG5100MCH memory controller hub in a Flip Chip-Ball Grid Array and Intel ICH9R
- 1066 MHz or 1333 MHz FSB
- Dual-channel, high-performance DDR2 registered ECC memory, operating at 533 or 667 MHz, expandable to 48 GB

Board Peripheral Features

- Onboard PCI video
- One (1) RJ45 LAN connector
- Three (3) x8 PCIe connectors from the MCH
- One (1) x1 PCIe and one (1) x4 PCIe lane from the ICH
- Six (6) SATA connectors
- One (1) PCI 32-bit 33 MHz slot
- Four (4) USB 2.0 ports
- One (1) floppy port
- One (1) serial port
- PS/2 port keyboard and mouse
- One (1) parallel port
- Super I/O via LPC bus
- ITP-XDP debug ports

Included in the Kit

- Development board
- Two (2) Quad-Core Intel Xeon processors L5408 at 2.13 GHz, 1066 MHz FSB¹
- Two (2) CPU heat sinks
- Two (2) DDR2-667 1 GB DIMMs
- Drivers CD
- Pre-installed jumpers
- Firmware hub, socketed and flashed with the BIOS

Intel Access

Intel in Embedded and Communications:	intel.com/go/embedded
Developer's Site:	developer.intel.com
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.

¹ 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.

¹ The following processors are also supported. Please contact your Intel sales representative for more information.

- Quad-Core Intel® Xeon® processor L5410¹ at 2.33 GHz, 1333 MHz FSB
- Quad-Core Intel® Xeon® processor L5318¹ at 1.6 GHz, 1066 MHz FSB
- Dual-Core Intel® Xeon® processor L5238¹ at 2.66 GHz, 1333 MHz FSB
- Dual-Core Intel® Xeon® processor LV5138¹ at 2.13 GHz, 1066 MHz FSB
- Dual-Core Intel® Xeon® processor E5220¹ at 2.33 GHz, 1333 MHz FSB

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Software Overview

The following independent software vendors support platforms based on quad-core or dual-core Intel Xeon processors with the Intel 5100 MCH chipset.

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

Intel strives to provide customers with a complete development environment supporting customer applications and operating systems. Any software provided in this development kit is subject to change without notice, and customers are encouraged to check for software updates at intel.com/design/intarch/devkits/index.htm.

Order Information

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