

## Product Brief

### Development Kit

Embedded Computing



# Intel® Core™2 Duo Processor T9400 and Intel® 5100 Memory Controller Hub Chipset Development Kit

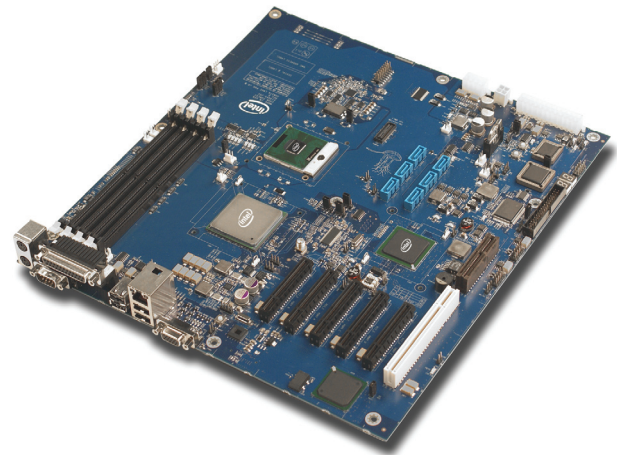
## Product Overview

The Intel® Core™2 Duo processor T9400<sup>A</sup> and Intel® 5100 Memory Controller Hub chipset development kit provides a high-performance, low-power platform for single-processor bladed form factor designs in security, voice, wireless infrastructure and embedded market segments. It is ideal for a wide range of applications, such as routers, IP-PBX, converged/unified communications platforms, content firewalls and unified threat management (UTM) systems.

This and other Intel® Core™2 Duo 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-generation dual-core Intel® processors.

The Intel® 5100 Memory Controller Hub chipset (Intel® 5100 MCH chipset) supports development with high-performance, low-power Intel® multi-core processors. Chipset power savings are derived from lower thermal design power (TDP) in the MCH, a low-power Intel® 82801IR I/O Controller Hub 9R (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

- Intel Core 2 Duo processor T9400 at 2.53 GHz, 1066 MHz front-side bus (FSB) in a  $\mu$ FC-PGA package
- Intel 5100 MCH chipset, consisting of the QG5100MCH memory controller hub in a Flip Chip-Ball Grid Array and ICH9R in a mBGA package
- Dual-channel, high-performance DDR2 registered ECC memory, operating at 533 or 667 MHz, expandable to 32 GB

## Board Peripheral Features

- One (1) onboard PCI VGA video controller
- One (1) RJ45 Gigabit Ethernet 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
- One (1) PS/2\* port keyboard and mouse
- One (1) parallel port
- One (1) ITP-XDP debug port

## Included in the Kit

- Development board
- One (1) Intel Core 2 Duo processor T9400 at 2.53 GHz, 1066 MHz FSB
- One (1) heat sink each for CPU, MCH and ICH
- Two (2) DDR2-667 512 MB DIMMs
- Four (4) memory slots expandable up to 32 GB
- Drivers CD
- Pre-installed jumpers
- Firmware hub, socketed and flashed with the BIOS

## Intel Access

Intel in Embedded and Communications:	<a href="http://intel.com/go/embedded">intel.com/go/embedded</a>
Developer's Site:	<a href="http://developer.intel.com">developer.intel.com</a>
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.

<sup>4</sup> 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](http://www.intel.com/products/processor_number) for details.

<sup>1</sup> For a full list of Intel supported processors, contact your Intel sales representative for more information.

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## Software Overview

The following independent software vendors support platforms based on the Intel Core 2 Duo processor T9400 with the Intel 5100 MCH chipset:

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

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](http://intel.com/design/intarch/devkits/index.htm).

## Order Information

EMBC2D5100CFDVK

