

Product Brief

Development Kit

Embedded Computing



Intel® Atom™ Processor Z5xx Series and Intel® System Controller Hub US15W Development Kit

Product Overview

The Intel® Atom™ processor Z5xx series and Intel® System Controller Hub US15W development kit offers a versatile platform for numerous embedded applications including in-vehicle infotainment, medical, interactive client (kiosks, point-of-sale terminals), gaming, and industrial control. The Intel® Embedded Graphics Drivers and video BIOS, developed specifically for embedded products and applications, also support the platform.

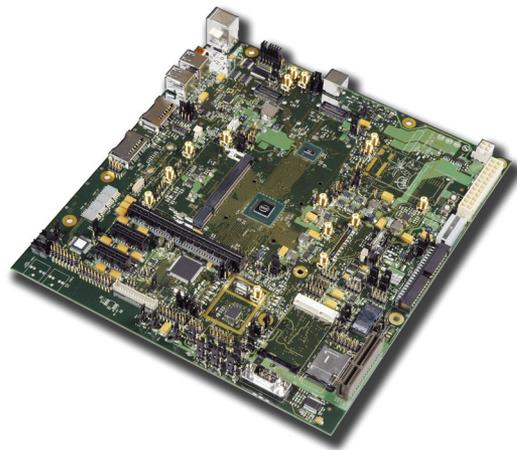
The Intel Atom processor drives enhancements in low-power design, extending the benefits of Intel® microarchitecture to small form factor, thermally constrained and fanless embedded applications. Implemented on 45nm process technology, this power-optimized processor provides increased performance-per-watt in an ultra-small 13x14 mm package. It features embedded life-cycle support and maintains compatibility with 32-bit Intel® architecture software and complementary silicon.

The Intel System Controller Hub (SCH) US15W integrates a graphics memory controller hub and I/O controller hub into one small 22x22 mm package. This low-power, highly integrated chipset also addresses key requirements of small form factor applications.

This and other development kits from Intel provide a 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 Atom processor Z530^A at 1.6 GHz with 533 MHz front-side bus (FSB)¹
- Intel System Controller Hub US15W
- 400 MHz or 533 MHz FSB
- Single-channel memory DDR2 400 MHz or 533 MHz SDRAM SO-DIMM, expandable to 1 GB



Board Peripherals Features

- One (1) single-channel SDVO port on x16 connector
- Single-channel 24-bit LVDS interface; BLI and LED backlight support
- Two (2) x1 PCI Express* or mini card connectors
- One (1) IDE connector
- Eight (8) USB 2.0 ports
- Three (3) SDIO ports (one 8-bit port and two 4-bit ports)
- PS/2 port keyboard and mouse
- Scan matrix keyboard header
- ITP-XDP debug port
- One (1) Intel® High Definition Audio² MDC header
- LPC connector
- Port 80 display

Included in the Kit

The Intel Atom processor Z5xx series and Intel System Controller Hub US15W development kit ships as a complete system in a chassis. It includes:

- Development board
- One (1) DDR2-533 1 GB SODIMM
- ADD2-N graphics SDVO card
- Intel® PRO/1000 LAN card
- Intel High Definition Audio card
- 80 GB HDD
- DVD drive
- Power supply
- Pre-installed jumpers
- Firmware hub, socketed and flashed with the BIOS
- Drivers CD

Software

The following operating systems and BIOS are currently supported on this development kit. In addition, Intel provides software drivers for this platform. Please contact your preferred vendor or an Intel representative for operating system and BIOS options.

Operating System	Contact
Microsoft Windows* XP Embedded SP2	Intel provides drivers
Microsoft Windows* XP SP2	Intel provides drivers
Microsoft Windows* WEPOS SP2	Intel provides drivers
Microsoft Windows* Embedded CE 6.0	Adeneo, BSQUARE, WiPro
QNX Neutrino*	QNX Software Systems
Red Hat Embedded Linux*	Red Hat
Red Flag Linux*	Red Flag Software
Wind River Linux*	Wind River Systems

BIOS/Contact

American Megatrends, Inc.
Insyde Software
Phoenix Technologies, including AwardCore*

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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Intel in Embedded and Communications: intel.com/go/embedded

⁴Intel 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.

¹The Intel® Atom™ processor Z510⁴ at 1.1 GHz with 400 MHz FSB is also supported. Please contact your Intel sales representative for more information.

²Intel® High Definition Audio requires a system with an appropriate Intel chipset and a motherboard with an appropriate codec and the necessary drivers installed. System sound quality will vary depending on actual implementation, controller, codec, drivers and speakers. For more information about Intel® HD audio, refer to <http://www.intel.com/>.

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