Intel® Atom™ Processor for Nettop Platforms

Intel's smallest processor, built with the world's smallest transistors

Product Brief

Intel® Atom™ Processors 230 and 330

The Intel® Atom™ processor is based on the new low-power Intel® Atom™ microarchitecture and manufactured on industry-leading 45nm technology. Designed to meet the needs of consumer and basic clients in both emerging and mature markets, nettops feature the Intel Atom processor 230[Δ] as well as the Intel Atom processor 330[Δ] which brings added performance, scalability, and the benefit of dual-core processing to the nettop platform.

The Intel Atom processors 230 and 330 are purpose-built for nettops, which deliver an affordable platform solution for content consumption-based activities such as photo and video viewing, social networking, VoIP, e-mail, messaging, browsing, and numerous other Internet activities and basic applications.

Built on trusted Intel technology known for quality and reliability for over 40 years, the Intel Atom processor is Intel's smallest processor, built with the world's smallest transistors. Intel Atom micro-architecture is also being used in other market segments and other devices, including Mobile Internet Devices (MIDs), netbooks, and embedded products.

Feature	Benefit
Small Form Factor CPU Package	The new lead-free[1] halogen-free[2] Micro-Flip Chip package is 70% smaller (22 x 22 mm) than a desktop CPU (37.5 x 37.5 mm), saving system board real estate in a much thinner and smaller industrial design, enabling small nettop form factors.
Low Thermal Design Power (TDP)	Low Thermal Design Power enables smaller desktop computing devices for the Internet due to the lower cooling requirements.
Power-Optimized Front Side Bus	Minimizes power needed to transmit data to the processor.
Enhanced Data Prefetcher and Enhanced Register Access Manager	Anticipates data the processor is likely to need and stores the information within the processor's L2 cache, resulting in improved performance since the processor doesn't have to wait as long for data.
Intel® Advanced Smart Cache	Cache and bus design for efficient data sharing, providing enhanced performance, responsiveness, and power savings.
Integrated DX9* Graphics Core	The Intel® Graphics Media Accelerator 950 provides 3D graphics performance for a good visual computing experience.
Intel® High Definition Audio 5.1	Integrated audio support enables quality sound and delivers advanced features such as multiple audio streams and jack re-tasking.

Intel® Atom™ Processor 230 and 330 at a Glance

Feature	Intel® Atom™ Processor 230	Intel® Atom™ Processor 330
Microarchitecture	Intel® Atom™ microarchitecture	Intel® Atom™ microarchitecture
Manufacturing Technology	45nm	45nm
Package	FCBGA8 22 mm x 22 mm x 1.6 mm (height)	FCBGA8 22 mm x 22 mm x 1.6 mm (height)
Frequency	 1.60 GHz	 1.60 GHz
Cores/Threads[3]	 1 core  2 threads	 2 cores  4 threads
Power Management	C0, C1	C0, C1
Low Thermal Design Power (TDP)	4.0W	8.0W
Voltage Regulator	VRD11	VRD11
L1 Cache	32 KB instruction cache, 24 KB data cache	32 KB instruction cache, 24 KB data cache
L2 Cache	 512 KB	  512 KB x 2
Front Side Bus Speed	 533 MHz	 533 MHz
Streaming SIMD Extensions	SSE, SSE2, SSE3	SSE, SSE2, SSE3
Chipset Support	Intel® 945GC Express Chipset	Intel® 945GC Express Chipset

[Δ] Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See www.intel.com/products/processor_number for details.

[1] Intel® 45nm product is manufactured in a lead-free process. Lead-free per EU RoHS Directive (2002/95/EC, Annex A). Some RoHS exemptions may apply to other components used in the product package.

[2] Applies to components containing flame retardants and PVC only. Halogens are below 900 PPM bromine, 900 PPM chlorine, and 1500 PPM combined bromine and chlorine.

[3] Hyper-Threading Technology requires a computer system with a processor supporting HT Technology and an HT Technology-enabled chipset, BIOS, and operating system. Performance will vary depending on the specific hardware and software used. For more information, including details on which processors support HT Technology, see www.intel.com/info/hyperthreading.

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