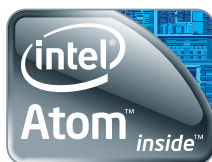
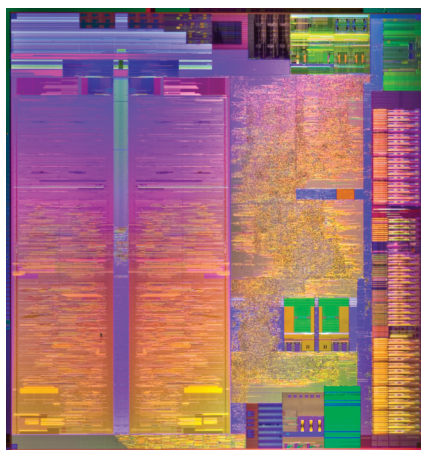


The Intel® Atom™ Processor for Home Servers and Small Office NAS Systems



Product Overview

Available for home servers and small office Network Attached Storage (NAS) systems, the Intel® Atom™ processor delivers amazing capabilities to consumers who want to access and share their digital lives, at home or away. Built from the ground up for low power and innovative designs, the Intel Atom processor provides energy-efficient performance for home servers and small office NAS systems.

The Intel Atom Processor—Access and Protection When You Need it

Powered by Intel Atom microarchitecture, today's home servers and small office NAS systems make it easier than ever to protect the data on your PCs, as well as access your digital music, video, photos, and files when you are on the go. No more worrying about which PC has that digital photo, song, or school report—all your files are never more than a few clicks away. Home servers and small office NAS systems with Intel Atom Inside® also provide advanced features like

media streaming, video conversion, and home automation control.

When combined with the Intel® 82801IR I/O Controller, the Intel Atom processor-based storage platform provides expandability for

easy capacity upgrades and faster network connectivity for improved performance. Systems built on the Intel Atom processor-based storage platform give you a more secure, easy way to manage your digital life.

Intel® Atom™ Processor D400/D500 Series Based Storage Platform

	SINGLE CORE	DUAL CORE
Processor Frequency	1.66 GHz	1.66 GHz
Number of Cores/Thread	1/2	2/4
Intel® SMART Cache	512 KB L2	1024 KB L2
Graphic	Intel® Graphic Media Accelerator 3150	
Intel® 64 Architecture ¹	Yes	Yes
Integrated Memory Controller	Yes	Yes
Memory Support	Single-channel dual-slot DD2 800 MHz, up to 4 GB	
Processor Manufacturing Process	45nm	45nm
Processor Package Size	22 mm x 22 mm	22 mm x 22 mm
Intel® I/O Controller	82801IR	82801IR
I/O Controller Package Size	31 mm x 31 mm	31 mm x 31 mm

Features and Benefits of the Intel® Atom™ Processor D400/D500 Series Based Storage Platform

Features	Benefits
Intel® Atom™ Microarchitecture and 45nm Process Manufacturing Technology	A purpose-built, low-power processor that delivers an affordable basic computing experience.
Small Form Factor Package Size	The lead-free, ² halogen-free ³ Micro-Flip Chip package which allows smaller storage platform designs.
Low Thermal Design Power (TDP)	Low TDP enables smaller, sleeker storage designs by reducing cooling requirements.
Enhanced Data Prefetcher and Enhanced Register Access Manager	Anticipates data the processor is likely to need, and stores the information within the processor L2 cache; resulting in improved performance because the processor doesn't have to wait as long for the data.
Intel® SMART Cache	Cache and bus design for efficient data sharing providing enhanced performance, responsiveness, and power savings.
Integrated Memory Controller	Integrated memory controller provides enhanced performance and system responsiveness.
Support for Windows* Home Server and Linux* Operating Systems ⁴	Choice of operating system for your storage platforms to address multiple market segments.

Features and Benefits of the Intel® 82801IR I/O Controller for the Storage Platform

Features	Benefits
Gigabit Ethernet Interface	Gigabit I/O connectivity reduces platform bottlenecks.
6 SATA II Ports, 2 with eSATA, and Port Multiplier Support	Scale from 2 to 6 internal drives with the capability to add storage capacity outside the system.
Hot Plug	Add or remove drives without powering down the system.
PCI Express* Interface	Enhanced PCI Express I/O support that provides flexibility and expandability to support scalable storage usages.

For more information on
Intel® Atom™ processors for Storage,
visit www.intel.com/go/storage



¹ 64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. Consult with your system vendor for more information.

² Intel® 45nm products are manufactured on a lead-free process, per EU RoHS directive (2002/95/EC, Annex A). Some RoHS exemptions may apply to other components used in the product package.

³ Applies to components containing flame retardants and PVC only. Hologens are below 900 PPM chlorine and 1500 PPM combined bromine and chlorine.

⁴ Supported operating systems include: Linux* distributions, Microsoft* Windows* XP Starter and Home Edition, Windows Vista* Starter and Home Basic Editions, and Windows 7* Starter and Home Basic Editions.

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