



# Opening the Exciting World of Computers at Exceptional Value

## The Intel® Celeron® D Processor

**The Intel® Celeron® D processor is based on Intel's industry leading 90nm manufacturing technology and the next generation LGA775 processor package.**

Desktop PCs based on the Intel® Celeron® D processor with Intel NetBurst® Microarchitecture offer an ideal solution for day-to-day home and office computing needs. The 256 KB cache and 533-MHz front-side dual-independent bus architecture in each Celeron D processor-based system makes it easy to handle everything from common office applications and educational programs to Web surfing, playing games and listening to music. With proven technology from the leader in microprocessors, the Intel Celeron D processor is the exceptional choice for an affordable and reliable PC.

These processors ship with processor numbers<sup>1</sup> as a means to identify the various features of the Celeron D processor in the LGA775 package.

The boxed Intel Celeron D processor in the LGA775 package features a thermal solution that provides an effective cooling solution to match the processor. Tested to the highest standards, the Intel-designed thermal solution has been validated for a variety of computing environments. The Intel-designed thermal solution features new fan speed control technology, based on actual CPU temperature and power usage, to help minimize acoustic noise generated from running the fan at higher speeds and increase thermal performance.

The acoustic benefits of this new thermal solution rely on a properly designed motherboard. Boxed Intel desktop boards based on Intel® 925X, 915 and 910 Express Chipsets were designed with support for acoustic benefits of this new thermal solution

Selecting the correct chassis and verifying proper thermal management is critical for integrating a high quality boxed Celeron D processor-based system. A Thermally Advantaged Chassis (TAC) based on TAC version 1.1 is highly recommended to assist in maintaining a required internal chassis temperature in Celeron D processor-based platforms in the LGA775 package.

The Intel Celeron D processor meets the unique needs of system builders and, by combining with other Intel PC building blocks, offers a full line of desktop systems for the value PC customer.



### The Boxed Intel® Celeron® D Processor Includes:

- Intel-designed thermal solution
- Three-year limited warranty
- Installation instructions
- Intel Inside® logo label

# Intel® Celeron® D Processor

## Support for Intel® 915G Express Chipset and Intel® 910GL Chipset

Integrated Intel® Graphics Media Accelerator 900 (Intel® GMA 900) and Intel® High Definition Audio supporting 7.1 surround sound utilizes system memory and processor capabilities to deliver outstanding graphics performance value

## Extended Memory 64 Technology

With the flexibility to run 64-bit OS while maintaining 32-bit addressability, an entire 64-bit hardware and software solution stack is required, ranging from processors and device drivers to operating systems, tools and applications. The primary value to customers lies in potential performance improvements achieved by the ability to address >4GB of both virtual and physical memory (which requires platform/motherboard designs including this much system memory.)

## Hyper-Pipelined Technology

A deeper pipeline allows instructions inside the processor to be queued and executed at the fastest possible rate. Eleven pipeline stages have been added to accommodate the bigger L1 and L2 cache sizes. The deep pipelines provide headroom for additional frequency and performance scaling improvements

## 533-MHz System Bus

A faster system bus provides higher bandwidth between the processor and the rest of the system, which improves both throughput and overall performance of the system.

## Full-Speed 256 KB Level 2 Advanced Transfer Cache

Increased cache size helps reduce the latency interface to cache data and provides a faster access to heavily used data and instructions.

## Dual-Independent Bus Architecture

Frees the system bus from cache traffic providing higher system bandwidth overall, which improves system performance and scalability.

## Streaming SIMD Extensions 3 (SSE3)

Single Instruction Multiple Data (SIMD) allows a single instruction to operate on more than one data set concurrently. New cache and memory management instructions enhance performance accelerating the operation across a broad range of applications.

## Next-Generation 90 nm Process Technology

Enables high frequency with low power.

## Execute Disable Bit

Allows the processor to classify areas in memory by where application code can execute and where it cannot.

## Intel Designed Thermal Solution

Designed to match the processor, new fan speed control technology is based on actual CPU temperature and power usage to help minimize acoustic noise.

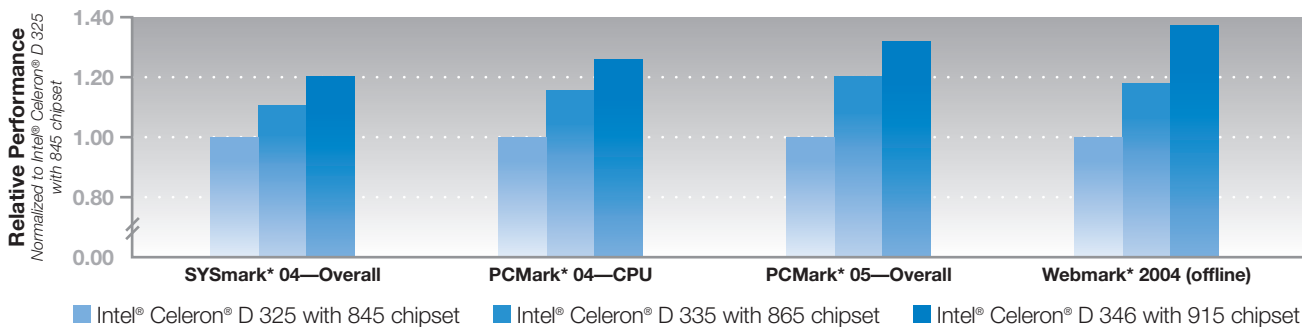
## Intel® Thermal Monitor (TM2)

An enhanced version of Intel® Thermal Monitor that lowers frequency and voltage Dynamic Voltage Identification (Dynamic VID) to reduce power consumption.

## Board Compatibility

Compatible with system boards that support LGA775 processors and 533-MHz system bus, the Intel® Celeron® D processor offers the system builder greater platform flexibility.

## Intel® Celeron® D Processor Platform Performance<sup>2</sup>



For the most current product information available, visit Intel's Web site at: [www.intel.com/reseller](http://www.intel.com/reseller)

<sup>1</sup> 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](http://www.intel.com/products/processor_number) for details.

<sup>2</sup> **First Configuration:** Intel® Celeron® D Processor 325 (256K L2 Cache, 2.53GHz, 533MHz FSB) with Intel® 845GV Chipset on Intel® D845GVSR motherboard. **Second Configuration:** Intel Celeron D Processor 335 (256K L2 Cache, 2.80GHz, 533MHz FSB) with Intel® 865G Chipset on Intel® D865GLC motherboard. **Third Configuration:** Intel Celeron D Processor 346 (256K L2 Cache, 3.06GHz, 533MHz FSB) with Intel® 915G Chipset on Intel® D915GAG motherboard. **All Configurations:** Intel Chipset Software Installation File 7.0.0.1019, Samsung® PC2700 2x256MB of DDR333 2.5-3-3-7, IBM® 120GXP Parallel ATA (80GB, 7200RPM), Windows® XP Professional SP2 NTFS, DirectX 9.0c. Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance of Intel products. Any difference in system hardware, software, or test run instructions may affect actual performance.

The Intel® Celeron® D processor may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

All products specified are based on current expectations, provided for planning purposes only, and are subject to change without notice. Availability in different channels may vary.

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