



# Mobile Intel® Celeron® Processor at 1.2 GHz for Embedded Computing

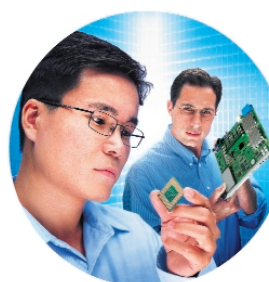
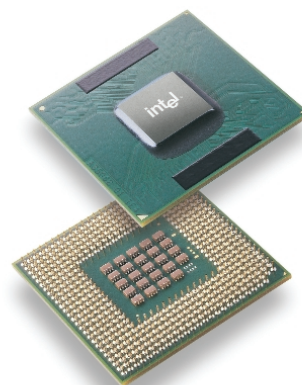
## Product Overview

With an advanced microarchitecture and frequency of 1.2 GHz, the Mobile Intel® Celeron® processor is ideal for scalable performance embedded computing, including communications, transaction terminal and industrial automation applications. While incorporating new features and improvements, it remains software compatible with previous members of the Intel® microprocessor family.

The Mobile Intel Celeron processor is validated with the Intel® 852GM chipset, expanding the selection of Celeron processor-based platforms with a superb balance of price and performance for embedded computing segments. This chipset provides up to 1 GB of single-channel DDR266 memory and features advanced integrated graphics technology.

## Product Highlights

- Available at 1.2 GHz with a 400 MHz processor system bus delivering 3.2 GB of data per second into and out of the processor
- Featuring the Intel NetBurst® microarchitecture
  - Hyper-pipelined technology of the NetBurst microarchitecture doubles the pipeline depth of the P6 microarchitecture
- Level 1 execution trace cache includes 8 KB data cache, as well as an execution trace cache that stores up to 12 K decoded micro-ops in the order of program execution
- Rapid execution engine includes two Arithmetic Logic Units (ALUs) clocked at twice the core processor frequency
- 256 KB Level 2 Advanced Transfer Cache (ATC) delivers a high data throughput channel between the Level 2 cache and the processor core. Features of the ATC include:
  - Non-blocking, full-speed, on-die Level 2 cache
  - 8-way set associativity
  - 256-bit data bus to the Level 2 cache
  - Data clocked into and out of the cache every clock cycle



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Better, faster  
and further.

## Product Highlights (continued)

- Deep, out-of-order speculative Advanced Dynamic Execution engine
- Enhanced floating-point and multi-media unit expands floating-point registers to a full 128-bit and adds an additional register for data movement
- Internet Streaming SIMD Extensions 2 (SSE2) adds 144 new instructions that include 128-bit SIMD integer arithmetic and 128-bit SIMD double-precision floating-point operations
- Data Prefetch Logic functionality anticipates the data needed by an application and pre-loads it into the ATC, further increasing processor and application performance
- Validated with the Intel 852GM chipset
- Manufactured on state-of-the-art 0.13μ process technology
- Memory cacheability up to 4 GB of addressable memory space; system memory scalability up to 64 GB of physical memory
- Support for uni-processor designs
- Data integrity and reliability features such as ECC, fault analysis and recovery for both system and L2 cache buses
- Fully compatible with existing Intel® Architecture-based software
- μFC-PGA 478-pin package with integrated heat spreader
- Embedded life cycle support

### Mobile Intel® Celeron® Processor at 1.2 GHz for Embedded Computing

Product Number	Core Speed	External Bus Speed	L2 Cache	Thermal Design Power	Voltage	Tjunction (Max)	Package
RH80532NC009256	1.2 GHz	400 MHz	256 KB	20.8 W	1.30 V	0-100° C	μFC-PGA 478

## Intel Access

Developer's Site:	<a href="http://developer.intel.com">developer.intel.com</a>
Embedded Intel® Architecture Home Page:	<a href="http://developer.intel.com/design/intarch">developer.intel.com/design/intarch</a>
Intel® Technical Documentation Center:	<a href="http://www.intel.com/go/techdoc">www.intel.com/go/techdoc</a> (800) 548-4725 7 a.m. to 7 p.m. CST (U.S. and Canada)  International locations please contact your local sales office.
General Information Hotline:	(800) 628-8686 or (916) 356-3104 5 a.m. to 5 p.m. PST

For more information, visit the Intel Web site at: [developer.intel.com](http://developer.intel.com)

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