



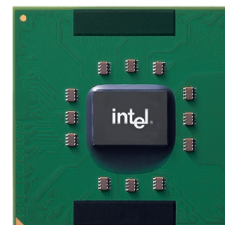
Intel® Celeron® M Processor 320 and Ultra Low Voltage Intel® Celeron® M Processor at 600 MHz

for Embedded Computing

Product Overview

The Intel® Celeron® M processor 320 and the Ultra Low Voltage Intel® Celeron® M processor at 600 MHz are the next generation of value processors, providing exceptional performance combined with low power. They are available at 1.3 GHz in either μ FC-PGA or μ FC-BGA packaging and at 600 MHz in μ FC-BGA packaging, with 512 KB of on-die L2 cache. These processors are ideal solutions for communications appliances such as media center appliances, network attached storage, Web pads and other applications with lower power envelopes and BOM requirements.

These processors are validated with the Intel® 855GME chipset, expanding the selection of Celeron processor-based platforms with a superb balance of price and performance for embedded computing segments. The 855GME chipset provides up to 2 GB single-channel DDR memory—DDR200, DDR266, DDR333—and features configurable optional Error Correcting Code (ECC) operation.



Product Highlights

- Built on the Intel® 0.13 micron process
- Available at 600 MHz and 1.3 GHz
- Supports Intel® Architecture with Dynamic Execution
- High-performance, low-power core
- On-die, primary 32 KB instruction cache and 32 KB write-back data cache
- On-die, 512 KB second-level cache with Advanced Transfer Cache architecture
- Advanced branch prediction and data prefetch logic
- Streaming SIMD Extensions 2 (SSE2)
- 400 MHz, source-synchronous FSB
- Supported with the Intel® 855GME chipset
- 7.0W (600 MHz), 24.5W (1.3 GHz) TDP
- Low-profile, surface-mount μ FC-BGA package or socketable μ FC-PGA package
 - 35 x 35 mm
 - 478 pins or 479 balls in area array
 - Tjunction: 0° to 100°C

Intel in
Communications



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Better, faster
and further.

Product Description

The Intel Celeron M processor 320 and the Ultra Low Voltage Intel Celeron M processor at 600 MHz feature a 400 MHz processor side bus as well as 512 KB of on-die L2 cache, which provides a high-performance, low-power combination ideal for value-based systems.

Features

Benefits

Efficient execution <ul style="list-style-type: none"> Advanced branch prediction Power-optimized processor system bus Micro-op fusion Hardware stack manager 	<ul style="list-style-type: none"> Fast program execution Low exception handling overhead Excellent packet manipulation: load, store Low context switching latency
Power-optimized circuitry <ul style="list-style-type: none"> Cache and processor bus power management 	<ul style="list-style-type: none"> Lower power consumption
Data supply <ul style="list-style-type: none"> Large L1/L2 caches 	<ul style="list-style-type: none"> Fast large-table look-ups: routing tables
High I/O bandwidth <ul style="list-style-type: none"> Supports PCI-X 64/66 when coupled with Intel® 6300ESB ICH 	<ul style="list-style-type: none"> High packet throughput and processing
Graphics support <ul style="list-style-type: none"> Intel® 855GME chipset provides integrated graphics support via Intel® Extreme Graphics 2 Technology 	<ul style="list-style-type: none"> Cutting-edge graphics performance while reducing system cost

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Product Number	Core Speed	External Bus Speed	L2 Cache	Thermal Design Power	Voltage	Tjunction	Package
RJ80535NC013512	1.3 GHz	400 MHz	512 KB	24.5W	1.356V	0-100°C	479 µFC-BGA
RH80535NC013512	1.3 GHz	400 MHz	512 KB	24.5W	1.356V	0-100°C	478 µFC-PGA
RJ80535VC600512	600 MHz	400 MHz	512 KB	7.0W	1.004V	0-100°C	479 µFC-BGA

Intel Access

Developer's Site:	developer.intel.com
Embedded Intel® Architecture Home Page:	developer.intel.com/design/intarch
Intel Technical Documentation Center:	www.intel.com/go/techdoc (800) 548-4725 7 a.m. to 7 p.m. CST (U.S. and Canada) International locations please contact your local sales office.
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