Ultra Low Voltage Intel® Celeron® Processor For Applied Computing

**Product Overview**

The Ultra Low Voltage Intel® Celeron® processors now provide an exceptional value for thermally sensitive and space-constrained applied computing applications by combining the optimal balance of cost, performance, and low power. Available in the small form factor µFCBGA package at 400 MHz or 650 MHz with 256K of on-die L2 Cache. These processors are ideal solutions for communication appliances such as media center appliances, network attached storage, Web pads and other applications with lower-power envelopes and BOM requirements.

**Product Highlights**

- **400 MHz and 650 MHz**
  - Built on the Intel® 0.13 micron process
  - 256K full-speed on-die L2 Cache operating at core frequency
  - Low-profile, surface-mount µFCBGA package
    - µFCBGA package (35 x 35 mm)
    - 479 balls in area array
    - Tjunction: 0º to 100ºC

- **Functional Features**
  - MMX™ technology
  - Floating Point Unit (FPU)
  - Dynamic Execution Micro-Architecture
  - On-Die L2 Cache with Error Checking and Correcting (ECC)

- **Ultra Low Voltage 400 MHz**
  - 400 MHz processor speed
  - 100 MHz processor side bus
  - 4.2W TDP (max), 3.75W TDP (typ)
  - Supported with Intel® 440MX and Intel® 815E Chipsets

- **Ultra Low Voltage 650 MHz**
  - 650 MHz processor speed
  - 100 MHz processor side bus
  - 8.3W TDP (max), 7.0W TDP (typ)
  - Supported with Intel 440MX and Intel 815E Chipsets
Product Brief

Ultra Low Voltage Intel® Celeron® processor for Applied Computing

Product Description

The Embedded Intel® Architecture ultra low voltage family features a 100 MHz processor side bus, designed for a faster transfer of data, to yield an increase in performance. The 256K of on-die L2 Cache combined with the efficiencies of the 0.13 micron manufacturing processes offers good performance for value-based systems. The compact form factor results in a low profile, meeting small space requirement. This enables a variety of value-based designs for thermally sensitive and space-constrained environments.

Ultra Low Voltage Intel® Celeron® Processor

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Core Speed (MHz)</th>
<th>External Bus Speed (MHz)</th>
<th>L2 Cache</th>
<th>Thermal Design Power (W)</th>
<th>Voltage</th>
<th>Junction Temperature (°C)</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>RJ80530VY650256</td>
<td>650</td>
<td>100</td>
<td>256K</td>
<td>8.3W</td>
<td>1.1V</td>
<td>0-100ºC</td>
<td>479µFCBGA</td>
</tr>
<tr>
<td>RJ80530VY400256</td>
<td>400</td>
<td>100</td>
<td>256K</td>
<td>4.2W</td>
<td>0.95V</td>
<td>0-100ºC</td>
<td>479µFCBGA</td>
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</tbody>
</table>

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