



# Low Voltage Intel® Pentium® III Processor

with 512K Cache for Applied Computing

## Product Overview

The Low Voltage Intel® Pentium® III processor with 512K cache at 800MHz and 933MHz is the solution for the high-density needs of the communications market segment. Created specifically to address the need for a high-performance, small form factor, and low-power processor, it is ideal for the most thermal-sensitive, space-constrained environments such as in CompactPCI single- and double-slot or 1U form factor communication applications.

The Low Voltage Pentium III processor with 512K cache is validated with the Intel® 815E chipset as well as chipsets from third-party vendors. It is dual-processing capable when combined with third-party chipsets. The Intel 815E chipset utilizes Intel® Graphics Technology, an integrated graphics platform which provides more stability, higher quality graphics and a reduced OEM bill of materials cost.

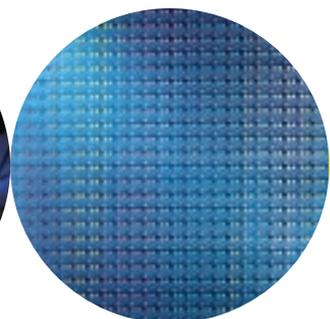
## Product Highlights

- Manufactured on state-of-the-art 0.13μ process technology
- Available in 800MHz and 933MHz with a 133MHz processor side bus at 1.15V
- Validated with the Intel® 815E chipset and chipsets from third-party vendors



- Both dual-processor (with third-party chipsets) and uni-processor capable
- 512K Advanced Transfer Cache (on-die, full-speed Level 2 (L2) cache with Error Correcting Code (ECC))
- Micro-FCBGA packaging technology
  - Supports small form factor designs
  - Exposed die enables more efficient heat dissipation
- Power management capabilities
  - System management mode
  - Multiple low-power states

Intel in  
Communications



## Product Highlights

- Dual Independent Bus (DIB) architecture: separate dedicated external processor side bus and dedicated internal high-speed cache bus
- Binary compatible with applications running on previous members of the Intel® microprocessor line
- Optimized for 32-bit applications running on advanced 32-bit operating systems
- Integrated high-performance 16KB instruction, 16KB data, non-blocking, Level 1 (L1) cache
- Dynamic execution microarchitecture
- Internet Streaming SIMD extensions for enhanced video, sound, and 3D performance
- Quad Quadword Wide (256-bit) cache data bus provides extremely high throughput on read/store operations
- 8-way cache associativity provides improved cache hit rate on read/store operations
- Error Correcting Code for system bus data
- Extended life cycle support

### Low Voltage Intel® Pentium® III Processors with 512K Cache

Product Number RJ80530KZ933512	Core Speed (MHz) 933MHz	External Bus Speed (MHz) 133MHz	L2 Cache 512K	Thermal Design Power (Max) 12.2 watts	Voltage 1.15V	Tjunction 100C	Package 479 µFCBGA
Product Number RJ80530KZ800512	Core Speed (MHz) 800MHz	External Bus Speed (MHz) 133MHz	L2 Cache 512K	Thermal Design Power (Max) 11.2 watts	Voltage 1.15V	Tjunction 100C	Package 479 µFCBGA

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