



VIA Eden™ - N Processor

The world's smallest, lowest power native x86 fanless processor with the most advanced embedded security features



Measuring just 15mm x 15mm, the VIA Eden-N in the nanoBGA package is the world's smallest native x86 processor - small enough to fit on a penny, yet packing a performance punch and embedded security features with unprecedented low levels of power consumption, opening up exciting new possibilities in fanless system design innovation.

Based on the next generation CoolStream™ architecture of the Nehemiah core, the VIA Eden-N processor delivers enhanced digital media performance with minimal power consumption, significantly reducing board real estate and enabling smaller, more highly integrated platforms such as the forthcoming 12cm x 12cm VIA Nano-ITX mainboard form factor, and a great variety of device applications, including servers, set top boxes and point of sales terminals, as well as slim and light mobile devices that require extended battery life.

The unique on-die security components of the PadLock™ Advanced Cryptography Engine provide fast, efficient and cost effective hardware encryption capabilities, paving the way for pervasive security for highly reliable, fanless, small footprint connected PC and smart digital devices that address the growing security needs of corporate, government, and home users.



World's Lowest Power Native x86 Processor:

With its streamlined Nehemiah core architecture, the VIA Eden-N processor delivers the industry's lowest levels of power consumption, and with its enhanced thermal characteristics achieves a Thermal Design Power of only 6 watts at 800MHz and 7 watts at 1GHz.



World's Most Advanced Native x86 Processor Hardware Security Features:

Providing greater peace of mind on sensitive data protection in PCs and over networks, the VIA Eden-N processor integrates advanced new on-die security features into the existing PadLock Security Suite of the Nehemiah core, including the new PadLock Advanced Cryptography Engine (ACE) for ultra-fast and efficient AES encryption, and two integrated RNGs.



Proven Digital Media Performance:

The VIA Eden-N processor employs VIA's advanced CoolStream architecture combining a host of digital media performance features, including support for sixteen pipeline stages, SSE and MMX multimedia instructions, StepAhead™ Advanced Branch Prediction, an efficiency-enhanced 64KB Full-Speed Exclusive L2 cache with 16-way associativity, and a full-speed FPU.