



Sales Information

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for information on
VIA Eden™ - N processors

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Features	Benefits
Fanless operation	Ultra reliable, silent and low power
NanoBGA package	World's smallest x86 processor (15mm x 15mm)
Ultra low power consumption	Industry leading max power consumption of a mere 7 watts at 1GHz
Padlock Security Suite	Power efficient industrial strength hardware encryption/decryption
Highly efficient CoolStream™ architecture	Increased performance and ultra low power consumption
Clock speeds up to 1GHz	Superior digital media and productivity application performance
16 pipeline stages	Faster CPU speed and efficiency
StepAhead™ Advanced Branch Prediction	Looks ahead and gathers the data needed to optimally run applications
Efficiency enhanced 64KB Full-Speed Exclusive L2 cache with 16-way associativity	Greater memory optimization for enhanced digital media streaming and over all performance
SSE Instructions	Enhanced 3D and multimedia performance
Full Speed FPU	Additional processing power for 3D graphics, multimedia, and streaming functions
Industry leading 0.13 micron manufacturing process	Minimizes power consumption and heat generation while allowing smaller, lighter processor coolers and maximizing total system power efficiency
Ultra low heat	Requires less cooling and less space, enabling greater innovation in small form factor system design
Full x86 Operating System & software application compatibility	Leverages the richest and most cost-effective software development platforms, including Microsoft® Windows®, Linux and Open BSD

Based on the advanced VIA CoolStream architecture, the VIA Eden-N processor boasts ultra low power consumption enabling it to run with passive cooling, ensuring increased reliability for systems that need to run 24/7. As a result of its low power consumption and tiny nanoBGA package, the VIA Eden-N processor provides system designers with increased freedom for innovation enabling smaller, quieter and even totally fanless devices that are unobtrusive and highly reliable.

The VIA Eden-N processor incorporates the PadLock Security Suite*, an advanced new on-die security feature that consists of the new PadLock Advanced Cryptography Engine (ACE) and two hardware based RNGs. PadLock ACE provides world-class performance for the US government approved Advanced Encryption Standard (AES), performing cryptographic functions for securing e-mails, personal files, online transactions, and networks, including the latest

high-bandwidth 802.11g wireless networks.

Security applications that leverage the capabilities of the PadLock Security Suite can be deployed quickly and easily across a broad range of devices including PCs, thin clients, set top boxes, home digital entertainment centers, point of sale terminals, and intelligent network routers in a wide variety of wired and wireless networking environments. Potential usage scenarios include Virtual Private Networks (VPNs), corporate Peer to Peer networks with restricted access for sensitive projects, and home wireless networks.

The VIA Eden-N processor is compatible with Microsoft® Windows® and all Linux-based operating systems and has been optimized for the most popular mainstream applications through performance enhancing technologies such as StepAhead™ Advanced Branch Prediction, providing highly efficient digital media and productivity performance.

* Note: The PadLock Security Suite has been evaluated by leading data security firm, Cryptography Research, Inc.; download the evaluation reports from the VIA Eden-N website at http://www.via.com.tw/en/Products/eden_n.jsp.