I need low power, performance and commitment in an x86 solution.

AMD Geode™ Solutions deliver performance and power that designers really need.
Low power consumption and high performance empower designers to leverage AMD Geode processor solutions for innovative, cutting-edge x86 applications within the embedded processor marketplace.

Industrial/Embedded Applications
- Microsoft® Windows® XPe, CE- Linux
- Handheld
- Automotive

Features
- Demand
- Entertainment on Multimedia Applications
- AMD Geode processors enable a variety of new and exciting multimedia products, combining high-performance application processing with excellent video support, all at power levels compatible with fanless and mobile systems.
- Computers
- Thin Client
- POS
- Information Appliances
- The right AMD Geode™ processor for virtually every vertical application.

Computing Applications
- Thin Client
- Maintenance Appliances
- POS

Multimedia Applications
- Entertainment on
- Digital
- IP Ready Delivery
- Standard
- Automotive

Industrial/Embedded Applications
- Low power consumption and high performance empower designers to leverage AMD Geode processor solutions for innovative, cutting-edge applications within the embedded processor marketplace.
AMD Geode™ NX Processor Solutions

AMD Geode™ NX 1500@6W Processor
High-performance fanless operation with scalability and proven architecture to leverage full Internet capability.

Fetch/Decode
- 3-Way x86 Instruction Decoders
- Integer Scheduler (18-entry)
- 2-way, 64KB Data Cache
- 32-entry L1 TLB/256-entry L2 TLB
- 2-way, 64KB Instruction Cache
- 24-entry L1 TLB/256-entry L2 TLB

Predecode
- Cache
- Branch Prediction
- Table
- Bus Interface
- L2 Cache
- 16-Way, 256KB

IEU
- FPU Stack Map / Rename
- FPU Scheduler (36-entry)
- FPU Scheduler (88-entry)
- Load / Store Queue Unit
- System Bus Interface
- FStore
- FADD
- MMX
- 3DNow!
- FMUL
- MMX
- 3DNow!

Instruction Control Unit (72-entry)

Features
- Pipelined floating-point execution unit
- Support for MMX®, SSE, and AMD 3DNow!™ professional instruction sets
- 266MHz FSB
- 128Kbyte L1 cache, 256Kbyte L2 cache with hardware data prefetch
- 6W typical core power at 1.0GHz
- No fan
- 453-pin Socket A compatible Organic PGA (OPGA) package
- Also available: AMD Geode NX 1750@14W* processor and AMD Geode NX 1250@6W* processor

Optimized for low-power applications such as server boxes, personal access devices, thin-client applications and other products that combine low power requirements with a small form factor, the AMD Geode™ NX 1500@6W processor provides the maximum mix of performance, power and size. The AMD Geode CS300 companion device enables fast design-to-market cycles.

Based on the AMD Athlon™ processor architecture, the AMD Geode™ NX 1500@6W processor features advanced design, proven performance and excellent power management characteristics. Compatible with the Mobile AMD Athlon infrastructure – including chipsets, BIOS, drivers, and more – the NX 1500@6W processor is an ideal solution for fanless applications where high performance and low power consumption are important.

Features
- x86 CPU with integrated graphics, DDR memory controller and FPU
- High-performance GeodeLink™ architecture
- 32-bit PCI bus
- 33/66 MHz 32-bit ISA bus
- 512-byte L1 cache, 256-byte instruction and 128-byte data
- Integrated display controller for CRT and TFT
- 64-bit DDR memory controller
- OS support
  - Microsoft® Windows® XP, XPe, CE
  - Linux

*The AMD Geode™ GX 533@1.1W processor operates at 400MHz. The AMD Geode™ GX 500@1.0W processor operates at 366MHz. The AMD Geode™ GX 466@0.9W processor operates at 333MHz.
Model numbers reflect performance as described here: http://www.amd.com/connectivitysolutions/geodegxbenchmark.
## Processor Selector Guide

The full range of AMD Geode™ processor solutions has been developed to give designers a broad range of capabilities and functionality. Use this chart to select the processor that's best suited to your application.

### Development Board Selector Guide

Development boards are designed to work with each component of the AMD Geode™ processor solutions family to provide more efficient designs and simplify the overall design cycle. Use this selector guide to choose the development board that's ideally suited to your design applications and the components you are using.

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### Comparison Chart

<table>
<thead>
<tr>
<th>AMD Geode™ Processor</th>
<th>Features</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model Number</strong></td>
<td><strong>Typ. Core Power (W)</strong></td>
<td><strong>Max Clock (MHz)</strong></td>
</tr>
<tr>
<td>AMD Geode™ NX 1250@6W</td>
<td>6.0</td>
<td>667</td>
</tr>
<tr>
<td>AMD Geode™ NX 1500@6W</td>
<td>1.1</td>
<td>1GHz</td>
</tr>
<tr>
<td>AMD Geode™ NX 1750@14W</td>
<td>0.9</td>
<td>1.4GHz</td>
</tr>
</tbody>
</table>

### Notes

1. All others are mono microphone and stereo headphone out.
2. For AMD Geode SP4SC31 system platform, video output is a total of three PCI slots, two at 3.3V and one at 5.0V. Two slots available at 66MHz or three slots available at 33MHz.
3. The AMD Geode™ NX DB1500 includes USB 2.0.
4. AMD no longer recommends new designs with the GXI processor.
5. The AMD Geode™ NX 1750@14W requires a fan.

### System Platforms and Development Boards

Each AMD Geode™ processor solution works in conjunction with a specially created development board that provides highly efficient design and test functions to shorten time-to-market cycles and produce more streamlined end products.

<table>
<thead>
<tr>
<th>Device</th>
<th>Features</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>NX 1250@6W</td>
<td>Micro/TV Stream Factor</td>
<td>OS support - Linux, Kernel 2.4.x - Microsoft Windows XP Professional - Microsoft Windows XPE</td>
</tr>
<tr>
<td>NX 1500@6W</td>
<td>Standard ATX</td>
<td>OS support - Linux, Kernel 2.4.x - Microsoft Windows XP Professional - Microsoft Windows XPE</td>
</tr>
<tr>
<td>NX 1750@14W</td>
<td>Standard ATX</td>
<td>OS support - Linux, Kernel 2.4.x - Microsoft Windows XP Professional - Microsoft Windows XPE</td>
</tr>
</tbody>
</table>

### Development Boards

<table>
<thead>
<tr>
<th>Board</th>
<th>Features</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC1200</td>
<td>Standard ATX LGA 775</td>
<td>OS support - Linux, Kernel 2.4.x - Microsoft Windows XP Professional - Microsoft Windows XPE</td>
</tr>
<tr>
<td>SC2200</td>
<td>128MB DDR SDRAM</td>
<td>OS support - Linux, Kernel 2.4.x - Microsoft Windows XP Professional - Microsoft Windows XPE</td>
</tr>
<tr>
<td>SC3200</td>
<td>128MB DDR SDRAM</td>
<td>OS support - Linux, Kernel 2.4.x - Microsoft Windows XP Professional - Microsoft Windows XPE</td>
</tr>
</tbody>
</table>

### Notes

- OS support: [Linux 2.4.x](http://www.amd.com/connectivitysolutions/geodenxbenchmark), [Microsoft Windows XP Professional](http://www.amd.com/connectivitysolutions/geodenxbenchmark), [Microsoft Windows XPE](http://www.amd.com/connectivitysolutions/geodenxbenchmark)
- Processor: [AMD Geode™ NX](http://www.amd.com/connectivitysolutions/geodenxbenchmark)
- Memory Interface: [UDMA-66](http://www.amd.com/connectivitysolutions/geodenxbenchmark)
- IDE: [ATA-5](http://www.amd.com/connectivitysolutions/geodenxbenchmark)
- PCI: [2.3](http://www.amd.com/connectivitysolutions/geodenxbenchmark) expansion slot
- Boot Flash memory: [128MB](http://www.amd.com/connectivitysolutions/geodenxbenchmark)

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**Processor Numbers Reflect Performance as Described Here:** [http://www.amd.com/connectivitysolutions/geodenxbenchmark](http://www.amd.com/connectivitysolutions/geodenxbenchmark)

**Model Numbers Reflect Performance as Described Here:** [http://www.amd.com/connectivitysolutions/geodenxbenchmark](http://www.amd.com/connectivitysolutions/geodenxbenchmark)

### Additional Information

- **AMD Geode™ NX 1250@6W**: Operates at 667MHz.
- **AMD Geode™ NX 1500@6W**: Operates at 1GHz.
- **AMD Geode™ NX 1750@14W**: Operates at 1.4GHz.
- **AMD Geode™ GX 533@1.1W**: Operates at 400MHz.
- **AMD Geode™ GX 500@1.0W**: Operates at 366MHz.
- **AMD Geode™ GX 466@0.9W**: Operates at 333MHz.
The AMD Geode™ GX thin client reference design kit (RDK) is a compact, low-power and high-performance system designed to help facilitate the next generation of thin client networked computing appliances. Building on AMD’s philosophy of delivering low total cost of ownership, the GX thin client reference design kit is optimized to provide value through all phases of the design and development cycle, and serves as a powerful, near manufacture-ready reference design tool.

Features
• CPU power to process multiple applications locally
• Small form factor – approximately 5.5”W x 1”H x 5”D
• Low power consumption – 6W typical, 1W standby – with no fan
• Support for multiple operating systems – Microsoft® Windows® CE – Microsoft XPe – Linux
• Support multiple protocols, plug-ins, and local application (Web browser, multimedia player) – Microsoft RDP – Citrix ICA – Java – Macromedia Flash