AMD ◢

Powerful Software Development Capability

for AMD Geode™ NX Processors

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Product Overview

The AMD Geode™ NX DB1500 development board is an integrated hardware and software system that leverages the power of AMD Geode™ NX processors. When coupled with SIS® chipset support, the NX DB1500 development board is a complete solution that optimizes the design of high-performance, low-power-consumption solutions for embedded products, including thin clients, point-of-sale, single-board computers, and other small form factor applications. It is a comprehensive evaluation unit for consumers designing with the NX processor family.
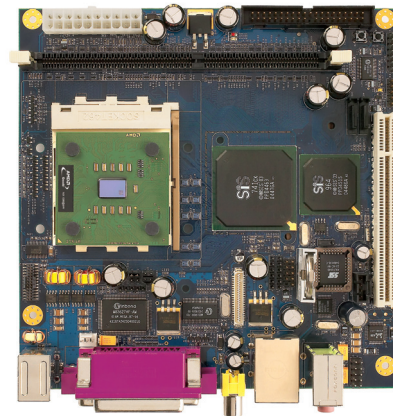
Turnkey Solution

The AMD Geode NX DB1500 development board is a turnkey solution that integrates a processor, chipset, memory, and peripherals together on a single board along with debugging assist features and software. The NX DB1500 development board underscores AMD's commitment to providing customers with integrated systems that address hardware and software needs, and positions AMD together with SIS as valued partners in the development of future embedded solutions.

High Performance for Quiet Applications

The AMD Geode NX DB1500 development board and SIS chipset are optimized to enable the AMD Geode™ NX 1500@6W processor* and the AMD Geode™ NX 1250@6W processor** to deliver maximum performance for demanding thin client or embedded applications that require silent or near-silent operation.

The AMD Geode NX DB1500 development board with SIS chipset is designed to provide maximum performance for applications that use the AMD Geode™ NX 1750@14W processor*** with active cooling for demanding applications such as graphics and point-of-sale systems.

Bring High-Performance Embedded Applications to Market Faster

The NX DB1500 development board provides a complete platform for software development and hardware validation. The system incorporates an NX processor, SIS 741CX and SIS 964 PC Chipset, DDR SDRAM, PCI expansion slot, USB 2.0, CRT and TFT Out, AC '97 Audio, and 10/100 Ethernet onto a Mini-ITX form factor single board. The result is a fully integrated system that provides PC-like features, performance and capabilities.

The unit can also be used as an implementation guide for routing and layout.

Enhanced Capability

The AMD Geode NX DB1500 development board delivers the same value-added development and validation solutions to other members of the AMD Geode™ NX processor family, including the AMD Geode NX 1750@14W processor*** and the AMD Geode NX 1250@6W processor.** Together with the AMD Geode NX 1500@6W* processor, this family of powerful x86 solutions provides a range of features and an optimized combination of low power and high performance to give designers broader versatility. Each of these processors is designed to be fully compatible with the NX DB1500 development board.

*This processor operates at 1GHz. Model number reflects performance as described here: http://www.amd.com/connectivitysolutions/geodenxbenchmark.
**This processor operates at 667MHz. Model number reflects performance as described here: http://www.amd.com/connectivitysolutions/geodenxbenchmark.
***This processor operates at 1.4GHz. Model number reflects performance as described here: http://www.amd.com/connectivitysolutions/geodenxbenchmark.

AMD Geode™ NX DB1500 Development Board

Primary Features

Memory Devices

- DIMM memory support for DDR DRAM module of up to 1GB
- Support for LPC Boot Flash

Expansion

- One PCI 2.2 Expansion slot

Debug Assist Features

- Test Points for Key signals
- Hardware Debug Tool Interface (software & adapter hardware available through 3rd party)
- LEDs for easy notification of system activity

On-Board Peripherals

- USB 2.0 Ports
- IDE Port
- Serial ATA Ports
- CRT Connector
- 10/100 Ethernet Port
- TFT Connector (optional display kit available)
- AC '97 Audio CODEC stereo with optional 6-channel audio support
- S/PDIF Audio output
- 16550 compatible Serial Port
- EPP/ECP Parallel Port
- IRDA
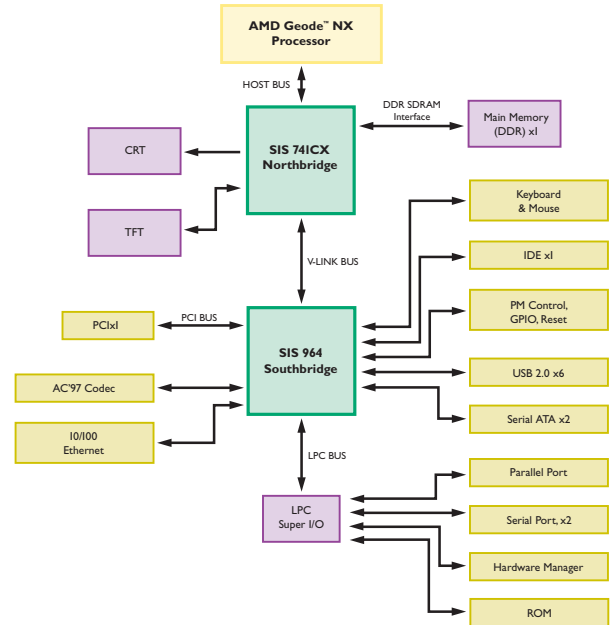
Software Included

- Platform-specific BIOS implementation
- Peripheral Initialization routines
- Diagnostics
- Example Code
- Development tools

System Documentation

- User's guide
- Quick Start Guide
- Hardware datasheets
- Complete set of hardware design files, including schematics, layout, and BOM

Ordering Information

- OPN: NX-DB1250S-EVAL-KT, NX-DB1500S-EVAL-KT, and NX-DB1750S-EVAL-KT

Diagram labels:
AMD Geode™ NX Processor — HOST BUS — SIS 741CX Northbridge — DDR SDRAM Interface — Main Memory (DDR) x1 — CRT — TFT — V-LINK BUS — Keyboard & Mouse — IDE x1 — PM Control, GPIO, Reset — PCIx1 — PCI BUS — SIS 964 Southbridge — USB 2.0 x6 — AC'97 Codec — Serial ATA x2 — 10/100 Ethernet — LPC BUS — Parallel Port — LPC Super I/O — Serial Port, x2 — Hardware Manager — ROM

About AMD

AMD (NYSE:AMD) designs and produces innovative microprocessors, Flash memory devices and low-power processor solutions for the computer, communications and consumer electronics industries. AMD is dedicated to delivering standards-based, customer-focused solutions for technology users, ranging from enterprises and governments to individual consumers.

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For more information, please visit www.amd.com/nxdb1500

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