AMD **Fusion**
FAMILY OF APUs
EMBEDDED TECHNOLOGY

Low-Power x86 Solutions for Networked Storage and Media Servers

OVERVIEW

Whether at the office or at home, everyone seems to be using, creating, and sharing content. Information such as financial records, email, marketing collateral, home video, music and pictures must be organized, secure and accessible. And this information must be protected from hardware failures using techniques such as RAID and protected from software issues by using snapshots and backup to ensure nothing is lost.

This content requires new embedded solutions to manage, manipulate and store data. This embedded network storage appliance needs to be affordable, scalable, and easy to use for managing information for business and home users.

AMD PLATFORM SOLUTIONS

To help meet the wide range of performance, power and price requirements for SoHo and home users, AMD offers a selection of processor and chipset solutions. Embedded AMD Phenom™ processors in AM3 package support quad core 65W TDP solutions to enable robust streaming of content to many business users.

AMD Turion™ II Neo processors in ASB2 BGA package support dual core 25W TDP with DDR3-1333 ECC memory and provides the scalability needed for small office and small business users.

The AMD Embedded G-Series CPU with the innovative low-power "Bobcat" x86 core provides the right balance of CPU performance, power – up to 18W TDP – and memory and I/O bandwidth for home users.

The AMD Embedded G-Series APU is the first Accelerated Processing Unit (APU) using the AMD Fusion® architecture for the embedded market. This new platform is designed to enable fanless configurations while still offering enhanced CPU and GPU performance.

FEATURE-RICH CAPABILITIES

AMD Processors support Microsoft® and Linux® operating systems that are tailored for these markets to be easy-to-use, protect data and serve applications. For SMB users, Windows® Small Business Server 2011 Essentials is an ideal fit. Automatic backup and recovery protects business information. Organize information, serve business applications such as accounting software and connect to online services such as email and CRM.

Windows® Home Server organizes, protects and streams digital media content throughout the home. Centralize the iTunes® folder, videos, photos and financial spreadsheets. Automatically backup files to a server to protect from system disk failure or recover from a software or virus attack.

AMD'S PROCESSOR SOLUTIONS PROVIDE THE FOLLOWING BENEFITS FOR NETWORKED STORAGE AND MEDIA SERVERS

> **Performance at the right power –** Embedded AMD Phenom™ Q54L 65W 4c 2.2GHz provides the performance needed for a mid-range embedded server appliance. Embedded AMD Turion™ II Neo processor provides a high performance dual core 2.2GHz but at a lower power 25W TDP to focus on performance per watt networked storage solutions.
  – The AMD Embedded G-Series CPU and APU, with TDPs between 5-18W, offer an ideal solution for low-power and small form factor platforms that are whisper quiet in home environments.

> **Scalability –** AMD Phenom™ Q54L processor and AMD Athlon™ II V60L both in AM3 package provide a single platform to scale from dual core 25W to quad core 65W TDP.
  – Similarly, AMD Turion™ II Neo and AMD Athlon™ II Neo in ASB2 BGA package scales from single core 8W TDP to dual core 25W TDP in the same footprint.
  – A single AMD Embedded G-series platform can be developed to target both deeply embedded headless designs and those that demand the latest graphics technology for a stunning visual experience.

AMD

AMD'S PROCESSOR SOLUTIONS PROVIDE THE FOLLOWING BENEFITS FOR NETWORKED STORAGE AND MEDIA SERVERS (continued)

> **Extensive I/O Support –** To connect to the wide variety of I/Os found in industrial applications, the AMD solutions offer support for the latest in high speed I/O including PCI Express®, USB 2.0 and SATA.

> **High I/O Bandwidth –** The AMD architecture enables the combination of high speed and low latency I/O while simultaneously performing high speed computation for real-time applications.

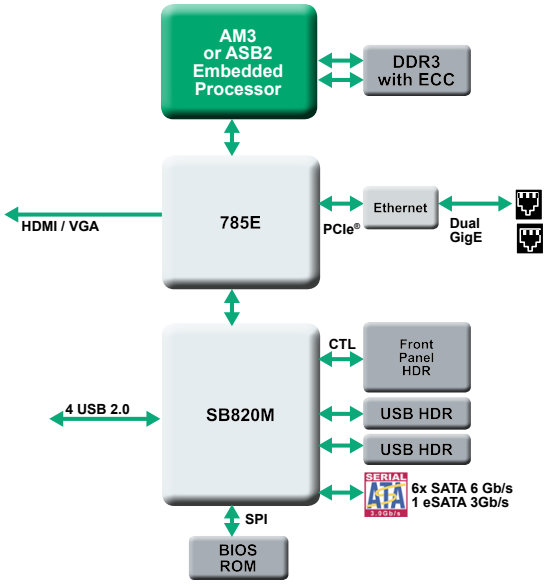
> **Reliability –** Select AMD processors support DDR3 ECC memory for networked storage in commercial environments.

> **Operating System Support –** Microsoft® Windows® Home Server (code name 'Vail'), Small Business Server 2011 Essentials (code named 'Aurora'), Windows® 7/Windows® 7 Embedded – Windows® Server Embedded, and Linux®.

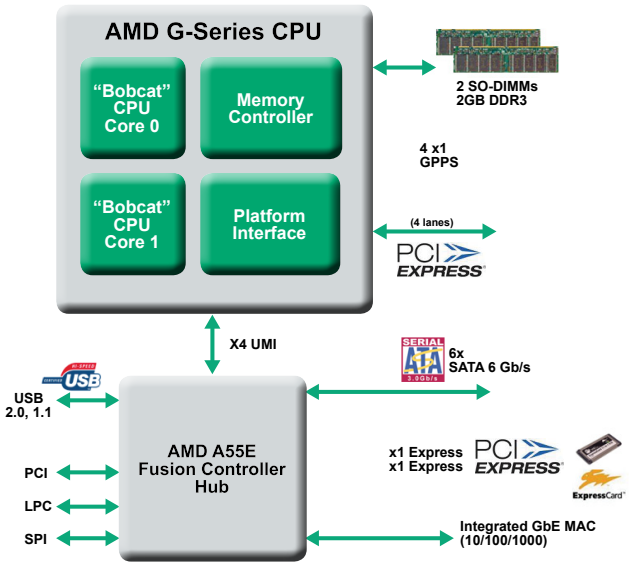
HELP SPEED YOUR TIME-TO-MARKET

The x86 compatibility of AMD's embedded solutions enables customers to tap in to the large array of software and applications already available for networked storage and media servers. Products such as the Sage EDK and SmartProbe by Sage Electronic Engineering can help to shorten the development time for a project, getting you to market with differentiated solutions quickly. The Sage EDK is optimized for AMD solutions to help increase the creativity and efficiency of embedded software developers and the SmartProbe endows the developer with the power to comprehensively and efficiently evaluate and/or manipulate the inner workings of the processor, chipset and peripherals. Built on open standards these tools help create the software for networked storage and media server applications allowing designers to focus on their unique product requirements. Meet schedules without sacrificing deliverables by spending less time troubleshooting problems and more time creating solutions.

NETWORKED STORAGE SERVER



MEDIA SERVER



Note: AMD G-Series APU can be used for a media server that also connects to HDTV.

www.amd.com/embedded

One AMD Place
P.O. Box 3453
Sunnyvale, CA 94088-3453, USA
Tel: 408-749-4000 or 800-538-8450
TWX: 910-339-9280
TELEX: 34-6306