



AMD Expands Award-Winning Embedded G-Series Family with New Pin-Compatible SoC and CPU Solutions

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New AMD Embedded G-Series processors selected by HP and Advantech for thin client and industrial solutions
AMD (NYSE: AMD) today announced new x86 AMD Embedded G-Series system-on-chip (SoC) and central processing unit (CPU) solutions for embedded applications, including early adoption by HP for thin client deployment in healthcare, finance, education and retail, as well as Advantech for industrial applications in rugged environments. The new product families expand upon the high-performance, low-power capabilities of the award-winning AMD Embedded G-Series platform, bringing high performance and integrated security with enterprise-class error-correction code (ECC) memory support, dual- and quad-core variants, and a discrete-class GPU and I/O controller on the same die. The new G-Series processors are pin-compatible across the AMD G-Series SoC and CPU family for ease of scalability among embedded applications, including communications and networking infrastructure, industrial control and automation (IC/A), thin clients, gaming machines, and digital signage. The AMD Embedded G-Series SoC family is one of the most widely adopted platforms in the history of AMD Embedded Solutions, and AMD brings even more capabilities, experiences and ecosystem support with these new offerings, said Scott Aylor, corporate vice president and general manager, AMD Embedded Solutions. "The new SoC and CPU additions further our commitment to provide embedded design engineers with the highest levels of power efficient graphics and compute capabilities in the market, along with a pin-compatible and secure product portfolio to maximize their software and board-level investments."
AMD Embedded G-Series SoC Solutions (Previously Codenamed: "Steppe Eagle")
The new AMD Embedded G-Series SoC is an ideal fit for rugged and harsh environments, including IC/A applications with offerings for ultra low-power solutions down to 5 watts TDP with configurable TDP (cTDP) features, to high-performance deployments with up to 53 percent more overall performance compared to previous G-Series SoC solutions¹. Advantechs new industrial-grade Mini-ITX motherboard AIMB-225 employs quad- and dual-core AMD Embedded G-Series SoC processors, resulting in ultra low power consumption and advanced graphics performance for rugged applications such as ATMs, kiosks, automation, medical equipment and gaming machines. Processors in the new AMD Embedded G-Series SoC family now include enhanced security features, with the AMD platform security processor (PSP) built upon the ARM TrustZone architecture, and are designed to protect against malicious access to sensitive data and operations at the hardware level, making them an ideal fit for cloud-based thin client solutions. "There is a growing need for more advanced embedded solutions in healthcare, finance, education and retail services, said Jeff Groudan, worldwide director, Thin Client product management, HP. "The AMD G-series SoC provides HP thin clients with enhanced security, value and unmatched performance."
AMD Embedded G-Series CPU Solutions (Previously Codenamed: "Crowned Eagle")
As datacenters continue to scale up to meet the demands brought by the cloud and the proliferation of devices, cost and energy efficiency aspects become ever more critical. IT organizations are looking to consolidate their processing capabilities onto a uniform architecture that delivers high performance at low costs and low power. With 64-bit processing based on dual- or quad-core x86 CPU architecture, the new AMD G-Series CPUs are ideally suited for networking and communications infrastructure applications. The new AMD G-Series CPUs deliver 1.2 - 2.0 GHz and a robust feature set, including integrated PCI-E Gen 2.0, USB3.0, SATA ports, and single-channel DDR3-1600 memory with ECC support. An on-chip PSP offloads Internet Protocol Security (IPsec) functionality, which facilitates control and data plane functionality, resulting in cost-optimized, fan-less security appliances, storage controllers and Network Attached Storage appliances. The integration of a wide variety of peripherals, combined with the ability to deliver 34 percent more CPU-centric performance-per-dollar than competing Intel solutions², makes the new AMD G-Series CPU an ideal choice for control plane applications on router and switch line cards.
New Features, Benefits and Support
Integrated security solution: By combining its breadth and decades of market experience with ARM TrustZone architecture, AMD is creating a new generation of secure computing capabilities for digital content, data, e-commerce and trusted client-to-cloud interactions. The AMD PSP is built upon the TrustZone architecture and designed to protect against malicious access to sensitive data and operations at the hardware level based on open standards and interoperable APIs.
Increased performance-per-watt: The AMD Embedded G-Series SoC provides advanced power management features, including cTDP, increase the performance-per-watt efficiency of the platform 96 percent compared to the previous platform³.
Pin compatibility: With the introduction of the new AMD G-Series SoC and CPU solutions, AMD embedded customers can now create common boards across the entire AMD G-Series SoC family to migrate designs between solutions for hardware, software and board-level scalability by leveraging existing hardware and software investments.
Open-source Linux development: As a gold-level member of the Yocto Project, a Linux Foundation Collaboration Project, and as part of a recent multi-year agreement with Mentor Graphics, embedded systems developers now have access to customized embedded Linux development and commercial support on the AMD G-Series family through Mentor Embedded Linux and Sourcery CodeBench, as well as no-cost Mentor Embedded Linux Lite.
About AMD
AMD (NYSE: AMD) designs and integrates technology that powers millions of intelligent devices, including personal computers, tablets, game consoles and cloud servers that define the new era of surround computing. AMD solutions enable people everywhere to realize the full potential of their favorite devices and applications to push the boundaries of what is possible. For more information, visit www.amd.com.
Advanced Micro Devices GmbH
Wilschdorfer Landstraße 101
01109 Dresden
Deutschland
Telefon: (03 51) 2 77 - 0
Telefax: (03 51) 2 77 - 9 - 19 99
Mail: amd.presse@amd.com
URL: <http://www.amd.com/germany>

Pressekontakt

AMD

01109 Dresden

amd.com/germany
amd.presse@amd.com

Firmenkontakt

AMD

01109 Dresden

amd.com/germany
amd.presse@amd.com

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