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AMD Details Embedded Product Roadmap

AMD Extends Ambidextrous Strategy to Embedded Customers Becoming the First to Offer Choice of ARM or x86 SoC, APU or CPU Options Coupled With Industry-Leading AMD Radeon Graphics

SUNNYVALE, CA -- (Marketwired) -- 09/09/13 -- AMD (NYSE: AMD) today disclosed its roadmap for the fast-growing embedded computing market, as it becomes the first company to offer both ARM and x86 processor solutions for low-power and high-performance embedded compute designs. The new lineup includes two best-in-class x86 accelerated processing units (APUs) and central processing units (CPUs), a first look at a high-performance ARM system-on-chip (SoC) and a new family of discrete AMD Embedded Radeon™ graphics processing units (GPUs) expected to launch in 2014. These additions provide the embedded industry's engineering community with more choices to match their exact design needs, and are designed to offer improvements in performance-per-watt and performance-per-dollar. Together with the recent launch of the award-winning AMD Embedded G-Series SoC family that set a superior bar for performance-per-watt low-power multicore APUs, these latest additions to the embedded product roadmap further signify a strategic push by AMD to focus on the high-growth embedded market.

The embedded systems market is vast and forms the underpinning for the Surround Computing era. This market is comprised of different segments of which intelligent embedded devices -- those enabled with high-performance microprocessors, IP connectivity, and high-level operating systems -- are quickly becoming the most significant. A recent VDC Research report indicates the market for CPUs in traditional and intelligent embedded systems will grow 36 percent from roughly 330 million units in 2013 to more than 450 million units by 2016 with x86 and ARM architectures accounting for 82 percent of the total addressable market (TAM)(1).

"AMD is committed to providing the embedded community with the solutions required to succeed in today's transformative market as it continues to expand at an unprecedented rate," said Arun Iyengar, vice president and general manager, AMD Embedded Solutions. "There are different customer needs in different segments of this market -- from low-power to high-performance, Linux to Windows, x86 to ARM -- and now with our upcoming product portfolio, we are addressing them by providing embedded design engineers with a range of solutions backed by our embedded longevity program for supply stability assurance to fit their every need."

"The unprecedented rise of intelligent connected solutions over the next several years will require a myriad of ultra low-power to ultra high-performance solutions connecting devices to the cloud," said Jim McGregor, Principal Analyst with TIRIAS Research. "With their new roadmap, AMD leverages both ARM and x86 computing and graphics architectures to fulfill the company's vision of creating an ambidextrous ecosystem. The current products combined with the new roadmap offer price, performance and power options to meet the needs of embedded designers."

2014 AMD Embedded Roadmap
In 2014, AMD plans to bring to market two new high-performance AMD Embedded R-Series processor families: the "Hierofalcon" CPU SoC family based on the ARM Cortex™-A57 architecture and the "Bald Eagle" APU and CPU offering based on the x86 microprocessor architecture codenamed "Steamroller." The upcoming "Steppe Eagle" APU SoC is designed to provide improved performance while extending the low-power characteristics of the current AMD Embedded G-Series SoC family. In addition, "Adelaar" will bring to market the first discrete GPU based on AMD Graphics Core Next architecture for embedded systems.

"Hierofalcon" CPU SoC
"Hierofalcon" is the first 64-bit ARM-based platform from AMD targeting embedded data center applications, communications infrastructure and industrial solutions. It will include up to eight ARM Cortex™-A57 CPUs expected to run up to 2.0 GHz, and provides high-performance memory with two 64-bit DDR3/4 channels with error correction code (ECC) for high reliability applications. The highly integrated SoC includes 10 Gb KR Ethernet and PCI-Express Gen 3 for high-speed network connectivity, making it ideal for control plane applications. The "Hierofalcon" series also provides enhanced security with support for ARM TrustZone® technology and a dedicated cryptographic security co-processor, aligning to the increased need for networked, secure systems. "Hierofalcon" is expected to be sampling in the second quarter of 2014 with production in the second half of the year.

"Bald Eagle" APU/CPU
With "Bald Eagle," AMD continues to build on its heritage as a leading provider of x86 solutions for the embedded market. "Bald Eagle" is the next generation high-performance x86-based embedded processor available as both an APU and CPU featuring up to four new "Steamroller" CPU cores within a 35W TDP. The APU products will provide the new power-optimized AMD Radeon™ Graphics Core Next GPU architecture and HSA enhancements for high-performance embedded applications, making it a superior solution for next-generation digital signage and embedded digital gaming. The "Bald Eagle" family will also introduce new power management features, such as configurable TDP, allowing engineers more design flexibility. "Bald Eagle" is expected to be available in the first half of 2014.

"Steppe Eagle" APU SoC
"Steppe Eagle" will further extend the performance and low-power range of the current award-winning AMD Embedded G-Series APU SoC platform with an enhanced "Jaguar" CPU core architecture and AMD Graphics Core Next GPU architecture that include new features for increased CPU and GPU frequency. Designed for low-power embedded applications, "Steppe Eagle" is designed to offer increased performance-per-watt both at a lower TDP than the current AMD Embedded G-Series APU SoC, as well as extending the high-end performance above 2 GHz. "Steppe Eagle" also provides embedded design engineers the flexibility to leverage the current AMD Embedded G-Series APU SoC board design and software stack for a variety of applications with footprint compatibility. "Steppe Eagle" is expected to be available in the first half of 2014.

"Adelaar" discrete GPU
"Adelaar" is the next-generation discrete AMD Embedded Radeon GPU based on Graphics Core Next architecture specifically designed for embedded applications. Bringing industry-leading performance to embedded applications, "Adelaar" comes as a market-differentiating multi-chip module (MCM) with pre-qualified and integrated 2 GB of graphics memory. The "Adelaar" GPU family will deliver rich 3D graphics, multi-display support and support for DirectX® 11.1, OpenGL 4.2 and both Windows and Linux. "Adelaar" is expected to be

available in the first half of 2014 with seven years of planned supply availability as an MCM, mobile PCI express module (MXM) and standard PC graphics card(2).

With current and future offerings, AMD is actively pursuing the intelligent embedded device market with a broad ecosystem of software and hardware partners supporting multiple operating systems including Windows and Linux. In particular, the company is focusing on:

- Industrial Control & Automation
- Digital Gaming
- Communication Infrastructure
- "Visual Embedded":
  - Digital Signage
  - Thin Client
  - Medical Imaging
  - Auto Infotainment
- Set-top-Box/Internet-enabled smart TV
- Printing/Imaging
- Digital Surveillance
- Storage
- Military/Aero

"AMD has quickly embraced the need to deliver the right SoC for the right task in one of the industry's most comprehensive product portfolios for the embedded community," said Tom Cronk, executive vice president and general manager, Processor Division, ARM. "The addition of devices based on the 64-bit ARM Cortex-A57 processor to their embedded roadmap gives designers of high-performance embedded systems a solution that delivers incredible savings in terms of both energy and system cost."

Resources

- View the AMD Embedded Roadmap press deck
- Follow AMD Embedded on Twitter: @AMDEmbedded
- For the latest on AMD Embedded, visit the AMD Embedded Systems blog

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.

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(1)VDC Research - Strategic Insights 2012: Embedded Processing Technologies
(2)Part availability is planned for seven years from date of announcement, subject to change without notice. Further support available under contract

Cautionary Statement
This press release contains forward-looking statements concerning AMD, its embedded product roadmap and strategy and the timing, features and functionality of AMD's future products, which are made pursuant to the safe harbor provisions of the Private Securities

Litigation Reform Act of 1995. Forward-looking statements are commonly identified by words such as "believes, "expects," "may," "will," "should," "seeks," "intends," "pro forma," "estimates," "anticipates," "plans," "projects," and other terms with similar meaning. Investors are cautioned that the forward-looking statements in this release are based on current beliefs, assumptions and expectations, speak only as of the date of this release and involve risks and uncertainties that could cause actual results to differ materially from current expectations. Risks include the possibility that Intel Corp.'s pricing, marketing and rebating programs, product bundling, standard setting, new product introductions or other activities may negatively impact the company's plans that the company will require additional funding and may be unable to raise sufficient capital on favorable terms, or at all; that customers stop buying the company's products or materially reduce their operations or demand for the company's products; that the company may be unable to develop, launch and ramp new products and technologies in the volumes that are required by the market at mature yields on a timely basis; that the company's third party foundry suppliers will be unable to transition the company's products to advanced manufacturing process technologies in a timely and effective way or to manufacture the company's products on a timely basis in sufficient quantities and using competitive process technologies; that the company will be unable to obtain sufficient manufacturing capacity or components to meet demand for its products or will not fully utilize its projected manufacturing capacity needs at GLOBALFOUNDRIES (GF) microprocessor manufacturing facilities; that the company's requirements for wafers will be less than the fixed number of wafers that it agreed to purchase from GF or GF encounters problems that significantly reduce the number of functional die it receives from each wafer; that the company is unable to successfully implement its long-term business strategy; that the company inaccurately estimates the quantity or type of products that its customers will want in the future or will ultimately end up purchasing, resulting in excess or obsolete inventory; that the company is unable to manage the risks related to the use of its third-party distributors and add-in-board (AIB) partners or offer the appropriate incentives to focus them on the sale of the company's products; that the company may be unable to maintain the level of investment in research and development that is required to remain competitive; that there may be unexpected variations in market growth and demand for the company's products and technologies in light of the product mix that it may have available at any particular time; that global business and economic conditions, including PC market conditions, will not improve or will worsen; that demand for computers will be lower than currently expected; and the effect of political or economic instability, domestically or internationally, on the company's sales or supply chain. Investors are urged to review in detail the risks and uncertainties in the company's Securities and Exchange Commission filings, including but not limited to the Quarterly Report on Form 10-Q for the quarter ended June 29, 2013.

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