June 9, 2022

AMD Details Strategy to Drive Next Phase of Growth Across $300 Billion Market for High-Performance and Adaptive Computing Solutions

AMD unveils next-generation hardware and software roadmaps, expanded product portfolio addressing new markets, and strategies to accelerate data center growth and deliver pervasive AI leadership

SANTA CLARA, Calif., June 09, 2022 (GLOBE NEWSWIRE) -- Today at its Financial Analyst Day, AMD (NASDAQ: AMD) outlined its strategy to deliver its next phase of growth driven by the company's expanded portfolio of high-performance and adaptive computing products spanning the data center, embedded, client, and gaming markets.

"From the cloud and PCs to communications and intelligent endpoints, AMD's high-performance and adaptive computing solutions play an increasingly larger role in shaping the capabilities of nearly every service and product defining the future of computing today," said Dr. Lisa Su, AMD chair and CEO. "The close of our transformational acquisition of Xilinx and our expanded portfolio of leadership compute engines provide AMD with significant opportunities to deliver continued strong revenue growth with compelling shareholder returns as we capture a larger share of the diverse $300 billion market for our high-performance and adaptive products."

Technology and Product Portfolio Updates
AMD announced expanded multi-generational CPU core, graphics, and adaptive computing architecture roadmaps including new details on the:

- "Zen 4" CPU core expected to power the world's first high-performance 5nm x86 CPUs later this year. "Zen 4" is expected to increase IPC 8%-10%[1] and deliver more than a 25% increase in performance-per-watt[2] and 35% overall performance increase compared to "Zen 3" when running desktop applications[2].
- "Zen 5" CPU core planned for 2024, which is built from the ground up to deliver performance and efficiency leadership across a broad range of workloads and features and includes optimizations for AI and machine learning.
- AMD RDNA™ 3 gaming architecture that combines a chiplet design, next generation AMD Infinity Cache™ technology, leading-edge 5nm manufacturing technology, and other enhancements to deliver more than 50% greater performance-per-watt compared to the prior generation[3].
- 4th Gen Infinity Architecture that further extends AMD's leadership modular SoC design approach with a high-speed interconnect, allowing seamless integration of both AMD

IP and 3rd party chiplets to enable an entirely new class of high-performance and adaptive processors and providing a custom-ready heterogenous computing platform.

- AMD CDNA™ 3 architecture, which combines 5nm chiplets, 3D die stacking, 4th generation Infinity Architecture, next-generation AMD Infinity Cache™ technology, and HBM memory in a single package with a unified memory programming model. The first AMD CDNA 3 architecture-based products are planned for 2023 and are expected to deliver more than 5X greater performance-per-watt compared to AMD CDNA 2 architecture on AI training workloads[4].
- AMD XDNA, the foundational architecture IP from Xilinx that consists of key technologies including the FPGA fabric and AI Engine (AIE). The FPGA fabric combines an adaptive interconnect with FPGA logic and local memory, while the AIE provides a dataflow architecture optimized for high performance and energy efficient AI and signal processing applications. AMD plans to integrate AMD XDNA IP across multiple products in the future, starting with AMD Ryzen™ processors planned for 2023.

Expanded Data Center Solutions Portfolio
AMD revealed an expanded portfolio of high-performance, next-generation CPUs, accelerators, data processing units (DPUs), and adaptive computing products optimized for multiple workloads, including:

- 4th Gen AMD EPYC™ processors powered by “Zen 4” and “Zen 4c” cores.
  - “Genoa” powered by “Zen 4”: On-track to launch in Q4 2022 as the highest performance general purpose server processor available, with the top-of-stack product delivering greater than 75% faster enterprise Java® performance compared to top-of-stack 3rd Gen EPYC processors[5].
  - “Bergamo” powered by “Zen 4c”: Expected to be the highest performance server processors for cloud native computing, offering more than double the container density of 3rd Gen EPYC processors at their launch planned for the first half of 2023[6].
  - “Genoa-X” powered by “Zen 4”: An optimized version of 4th Gen EPYC processors with AMD 3D V-Cache™ technology to enable leadership performance in relational database and technical computing workloads[7].
  - "Siena” powered by “Zen 4”: The first AMD EPYC processor optimized for intelligent edge and communications deployments that require higher compute densities in a cost and power optimized platform.
- AMD Instinct™ MI300 accelerators, the world’s first data center APUs, expected to deliver a greater than 8x increase in AI training performance compared to the AMD Instinct MI200 accelerator[8]. MI300 accelerators leverage a groundbreaking 3D chiplet design combining AMD CDNA 3 GPU, “Zen 4” CPU, cache memory, and HBM chiplets that are designed to provide leadership memory bandwidth and application latency for AI training and HPC workloads.
- AMD Pensando DPUs that combine a robust software stack with “zero trust security” throughout and an industry-leading packet processor to create the world’s most intelligent and performant DPU, which is already deployed at scale across cloud and enterprise customers.
- Alveo™ SmartNICs deployed by hyperscale customers to accelerate custom workloads and extend confidential computing to the networking interface.

Accelerating Leadership in Pervasive AI
AMD is uniquely positioned with its broad product portfolio and experience serving diverse embedded markets to help customers develop and deploy applications with multiple forms of AI.

The transformative acquisition of Xilinx provides AMD with an unmatched set of hardware and software capabilities, integrating the leadership Xilinx AI Engine (AIE) across AMD Ryzen, AMD EPYC and Xilinx Versal™ products for small and mid-size AI models to complement next-generation AMD Instinct accelerators and adaptive SoCs, enabling leadership performance on scale-out training and inference workloads.

To unify AI programming tools, AMD also announced a multi-generation Unified AI Software roadmap that will allow AI developers to program across its CPU, GPU, and Adaptive SoC product portfolio from machine learning (ML) frameworks with the same set of tools and pre-optimized models.

Expanding PC Leadership
AMD showcased its leadership in the global PC market, detailing how it continues to deepen OEM partnerships and drive continued growth across premium, gaming, and commercial markets, and provided a preview of its client roadmap over the next several years, including:

- The “Phoenix Point” mobile processor planned for 2023 will bring together the AMD “Zen 4” core architecture with AMD RDNA 3 graphics architecture and AIE, followed by the “Strix Point” processor planned for 2024. “Phoenix Point” innovations include the AIE inference accelerator, image signal processor, advanced display for refresh and response, AMD chiplet architecture, and extreme power management.
- The “Zen 4”-based Ryzen 7000 Series desktop processors, which are expected to deliver faster clock speeds and greater single and multi-threaded performance compared to Ryzen 6000 processors[9], will be followed by “Zen 5”-based “Granite Ridge” processors.

Driving Graphics Momentum
AMD announced the latest developments designed to continue bringing world-class graphics solutions to customers worldwide, including:

- “Navi 3x” products are expected to launch later this year, built on the next-generation AMD RDNA 3 gaming architecture.
- More than 50 new gaming PC platforms are expected to launch in 2022, elevating gaming to new levels of performance and visual fidelity by combining AMD Radeon™ RX Series graphics with AMD Ryzen processors.
- AMD expanded its leadership position in the gaming console space with the addition of Valve’s Steam Deck™ gaming handheld, powered by AMD “Zen 2” architecture- based processors and AMD RDNA 2 architecture-based graphics.
- New growth opportunities in 2022 and beyond, including providing a range of graphics technologies to accelerate next-generation metaverse applications, ranging from 3D content creation beyond games and movies, to cloud gaming and interactivity within metaverse environments.

New Financial Reporting Segments
Starting with second quarter 2022 results, AMD is updating its financial reporting segments to align with its strategic end markets:

- Data Center: Including server CPUs, data center GPUs, and the portions of Xilinx revenue related to the data center business
- Embedded: Including the Xilinx embedded business plus the AMD embedded business
- Client: Including the traditional desktop and notebook PC business
- Gaming: Including the discrete graphics gaming business and the semi-custom game console business.

Together We Advance
To complement the evolution of its strategic end markets and leadership product portfolio, AMD also showcased a new evolution of its brand. The new brand platform, “together we advance_” demonstrates how, together with its partners, customers, and employees, AMD is advancing innovation to create solutions to the world’s toughest challenges. The new brand campaign is the largest in AMD history and sees the AMD arrow mark becoming more prominent in all communications assets, illustrating how pervasive AMD technology is by powering large, diverse, and growing markets.

Supporting Resources

- Watch the event replay
- Access event presentations
- Read more about AMD brand updates
- Follow AMD on Twitter

About AMD
For more than 50 years AMD has driven innovation in high-performance computing, graphics, and visualization technologies. AMD employees are focused on building leadership high-performance and adaptive products that push the boundaries of what is possible. Billions of people, leading Fortune 500 businesses, and cutting-edge scientific research institutions around the world rely on AMD technology daily to improve how they live, work, and play. For more information about how AMD is enabling today and inspiring tomorrow, visit the AMD (NASDAQ: AMD) website, blog, LinkedIn, and Twitter pages.

Cautionary Statement
This press release contains forward-looking statements concerning Advanced Micro Devices, Inc. (AMD) such as the features, functionality, performance, availability, timing and expected benefits of AMD products; AMD’s next phase of growth; AMD’s significant opportunity to deliver strong growth and shareholder returns over the next five years; expected benefits of AMD’s acquisition of Pensando Systems; and AMD’s new growth opportunities in 2022 and beyond, 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 "would," "may," "expects," "believes," "plans," "intends," "projects" and other terms with similar meaning. Investors are cautioned that the forward-looking statements in this press release are based on current beliefs, assumptions and expectations, speak only as of the date of this press release and involve risks and uncertainties that could cause actual results to differ materially from current expectations. Such statements are subject to certain known and unknown risks and uncertainties, many of which are difficult to predict and generally beyond AMD's control, that could cause actual results and other future events to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. Material factors that could cause actual results to differ materially from current expectations include, without limitation, the following: Intel Corporation’s dominance of the microprocessor market and its aggressive business practices; global economic uncertainty; loss of a significant customer; impact of the

COVID-19 pandemic on AMD's business, financial condition and results of operations; competitive markets in which AMD's products are sold; market conditions of the industries in which AMD products are sold; cyclical nature of the semiconductor industry; quarterly and seasonal sales patterns; AMD's ability to adequately protect its technology or other intellectual property; unfavorable currency exchange rate fluctuations; ability of third party manufacturers to manufacture AMD's products on a timely basis in sufficient quantities and using competitive technologies; availability of essential equipment, materials, substrates or manufacturing processes; ability to achieve expected manufacturing yields for AMD's products; AMD's ability to introduce products on a timely basis with expected features and performance levels; AMD's ability to generate revenue from its semi-custom SoC products; potential security vulnerabilities; potential security incidents including IT outages, data loss, data breaches and cyber-attacks; uncertainties involving the ordering and shipment of AMD's products; AMD's reliance on third-party intellectual property to design and introduce new products in a timely manner; AMD's reliance on third-party companies for design, manufacture and supply of motherboards, software and other computer platform components; AMD's reliance on Microsoft and other software vendors' support to design and develop software to run on AMD's products; AMD's reliance on third-party distributors and add-in-board partners; impact of modification or interruption of AMD's internal business processes and information systems; compatibility of AMD's products with some or all industry-standard software and hardware; costs related to defective products; efficiency of AMD's supply chain; AMD's ability to rely on third party supply-chain logistics functions; AMD's ability to effectively control sales of its products on the gray market; impact of government actions and regulations such as export administration regulations, tariffs and trade protection measures; AMD's ability to realize its deferred tax assets; potential tax liabilities; current and future claims and litigation; impact of environmental laws, conflict minerals-related provisions and other laws or regulations; impact of acquisitions, joint ventures and/or investments on AMD's business, and ability to integrate acquired businesses, such as Xilinx; impact of any impairment of the combined company's assets on the combined company's financial position and results of operation; restrictions imposed by agreements governing AMD's notes, the guarantees of Xilinx's notes and the revolving credit facility; AMD's indebtedness; AMD's ability to generate sufficient cash to meet its working capital requirements or generate sufficient revenue and operating cash flow to make all of its planned R&D or strategic investments; political, legal, economic risks and natural disasters; future impairments of goodwill and technology license purchases; AMD's ability to attract and retain qualified personnel; AMD's stock price volatility; and worldwide political conditions. Investors are urged to review in detail the risks and uncertainties in AMD's Securities and Exchange Commission filings, including but not limited to AMD's most recent reports on Forms 10-K and 10-Q.

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[1] Z4-001: IPC uplift based on the average of estimated/published 2017 SPECint® and 2017 SPECfp® scores and internal estimates/testing on Cinebench R23 1T and Geekbench 5 1T.for "Zen4" and "Zen 3" processors

[2] Z4-003: Testing as of May 31, 2022, by AMD Performance Labs. Power measured at CPU socket only (Watts), CPU performance ("points") measured with Cinebench R23 nT. AMD Ryzen 9 5950X System: AMD Reference X570 Motherboard, 2x8 DDR4-3200. AMD Ryzen 7000 Series: AMD Reference X670 Motherboard, Ryzen 7000 Series 16-core pre-production

processor sample, 2x16GB DDR5-5200. All systems configured with Radeon™ RX 6950XT GPU (driver: 22.10 Prime), Windows 11 Build 22000.593, Samsung 980 Pro 1TB SSD, Asetek 280MM liquid cooler. Results may vary when final products are released in market.

[3] Based on preliminary internal engineering estimates. Actual results subject to change

[4] MI300-004: Measurements by AMD Performance Labs June 4, 2022. MI250X (560W) FP16 (306.4 estimated delivered TFLOPS based on 80% of peak theoretical floating-point performance). MI300 FP8 performance based on preliminary estimates and expectations. MI300 TDP power based on preliminary projections. Final performance may vary

[5] SP5-005: Server-side Java multiJVM workload demo comparison based on AMD measured testing as of 6/2/2022. Configurations: 2x 96-core AMD 4th Gen EPYC (pre-production silicon) on a reference system versus 2x 64-core EPYC 7763 on a reference system. Java version JDK18.To fit in demo time permitted, the full server-side Java run that typically takes about 20 minutes was reduced to a short-preset time where both systems were running at 99% CPU utilization, eliminating the “warm up” period data. OEM published scores will vary based on system configuration and use of production silicon.

[6] SP5-006: 128-core 4th Gen EPYC CPUs compared to a 64-core 3rd Gen EPYC 7763 for 2x the container density

[7] “Technical Computing” or “Technical Computing Workloads” as defined by AMD can include: electronic design automation, computational fluid dynamics, finite element analysis, seismic tomography, weather forecasting, quantum mechanics, climate research, molecular modeling, or similar workloads. GD-204

[8] MI300-03 - Measurements by AMD Performance Labs June 4, 2022 on current specification and/or estimation for delivered FP8 floating point performance with structure sparsity supported for AMD Instinct™ MI300 vs. MI250X FP16 (306.4 estimated delivered TFLOPS based on 80% of peak theoretical floating-point performance). MI300 performance based on preliminary estimates and expectations. Final performance may vary. MI300-03

[9] Z4-005: Testing as of May 5, 2022, by AMD Performance Labs. Single-thread performance evaluated with Cinebench R23 1T. AMD Ryzen 9 5950X System: ASUS ROG Crosshair VIII Hero X570, 2x8 DDR4-3600C16. AMD Ryzen 7000 Series: AMD Reference X670 Motherboard, Ryzen 7000 Series 16-core pre-production processor sample, 2x16GB DDR5-6000CL30. All systems configured with Radeon™ RX 6950XT GPU (driver: 22.10 Prime), Windows 11 Build 22000.593, Samsung 980 Pro 1TB SSD, Asetek 280MM liquid cooler. Testing as of May 31, 2022 by AMD performance labs. Multi-thread performance evaluated with Cinebench R23 1T. AMD Ryzen 9 5950X System: AMD Reference X570 Motherboard, 2x8 DDR4-3200. AMD Ryzen 7000 Series: AMD Reference X670 Motherboard, Ryzen 7000 Series 16-core pre-production processor sample, 2x16GB DDR5-5200. All systems configured with Radeon™ RX 6950XT GPU (driver: 22.10 Prime), Windows 11 Build 22000.593, Samsung 980 Pro 1TB SSD, Asetek 280MM liquid cooler
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