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AMD Extends Leadership Adaptive SoC Portfolio with New Versal Series Gen 2 Devices Delivering End-to-End Acceleration for AI-Driven Embedded Systems

— First devices in AMD Versal Series Gen 2 portfolio target up to 3x higher TOPs-per-watt with next-gen AI Engines and up to 10x more CPU-based scalar compute than first generation —

— Subaru among first customers to announce plans to deploy AMD Versal AI Edge Series Gen 2 to power next-gen 'EyeSight' ADAS vision system —

NUREMBERG, Germany, April 09, 2024 (GLOBE NEWSWIRE) -- AMD (NASDAQ: AMD) today announced the expansion of the AMD Versal™ adaptive system on chip (SoC) portfolio with the new Versal AI Edge Series Gen 2 and Versal Prime Series Gen 2 adaptive SoCs, which bring preprocessing, AI inference, and postprocessing together in a single device for end-to-end acceleration of AI-driven embedded systems.

These initial devices in the Versal Series Gen 2 portfolio build on the first generation with powerful new AI Engines expected to deliver up to 3x higher TOPs-per-watt than first generation Versal AI Edge Series devices[i], while new high-performance integrated Arm® CPUs are expected to offer up to 10x more scalar compute than first gen Versal AI Edge and Prime series devices[ii].

"The demand for AI-enabled embedded applications is exploding and driving the need for single-chip solutions for the most efficient end-to-end acceleration within the power and area constraints of embedded systems," said Salil Raje, senior vice president and general manager, Adaptive and Embedded Computing Group, AMD. "Backed by over 40 years of adaptive computing leadership, these latest generation Versal devices bring together multiple compute engines on a single architecture offering high compute efficiency and performance with scalability from the low-end to high-end."

Balancing performance, power, area, together with advanced functional safety and security, Versal Series Gen 2 devices deliver new capabilities and features that enable the design of high-performance, edge-optimized products for the automotive, aerospace and defense, industrial, vision, healthcare, broadcast and pro AV markets.

Powering Subaru's Next-Gen ADAS Vision System
Subaru Corporation has selected Versal AI Edge Series Gen 2 devices for the company's next-generation advanced driver-assistance system (ADAS) vision system, known as EyeSight. The EyeSight system is integrated into select Subaru car models to enable

advanced safety features, including adaptive cruise control, lane-keep assist, and pre-collision braking. Subaru is using AMD adaptive SoC technology in current EyeSight-equipped vehicles.

“Subaru has selected Versal AI Edge Series Gen 2 to deliver the next generation of automotive AI performance and safety for future EyeSight-equipped vehicles,” said Satoshi Katahira, General Manager, Advanced Integration System Department & ADAS Development Department, Engineering Division, Subaru Corporation. “Versal AI Edge Gen 2 devices are designed to provide the AI inference performance, ultra-low latency, and functional safety capabilities required to put cutting-edge AI-based safety features in the hands of drivers.”

Versal AI Edge Series Gen 2
To meet the complex processing needs of real-world systems, AMD Versal AI Edge Series Gen 2 devices incorporate an optimal mix of processors for all three phases of AI-driven embedded system acceleration:

- Preprocessing: FPGA programmable logic for real-time preprocessing with unparalleled flexibility to connect to a wide range of sensors and implement high-throughput, low-latency data-processing pipelines
- AI Inference: An array of vector processors in the form of next-gen AI Engines for efficient AI inference
- Postprocessing: Arm CPU cores providing the postprocessing power needed for complex decision-making and control for safety-critical applications.

This single-chip intelligence can eliminate the need to build multi-chip processing solutions, resulting in smaller, more efficient embedded AI systems with the potential for shorter time-to-market.

Versal Prime Series Gen 2
The AMD Versal Prime Series Gen 2 provides end-to-end acceleration for traditional, non-AI-based embedded systems by combining programmable logic for sensor processing with high-performance embedded Arm CPUs. Designed to offer up to 10x more scalar compute compared to the first generation, these devices can efficiently handle sensor processing and complex scalar workloads.

With new hard IP for high-throughput video processing, including up to 8K multi-channel workflows, Versal Prime Gen 2 devices are ideally suited for applications such as ultra-high-definition (UHD) video streaming and recording, industrial PCs, and flight computers.

Broad and Scalable Portfolio
The Versal AI Edge Series Gen 2 and Versal Prime Series Gen 2 portfolios provide scalability from edge sensors to centralized compute for AI-driven systems. They feature a range of devices with increasing amounts of AI and adaptive compute to allow customers to select the performance, power, and area footprints to efficiently achieve application performance and safety targets.

Streamlined Design Cycles
The AMD Vivado™ Design Suite tools and libraries help boost productivity and streamline design cycles for embedded hardware system developers, offering fast compile times and enhanced quality of results. For embedded software developers, the AMD Vitis™ Unified

Software Platform enables embedded software, signal processing, and AI design development at users' preferred levels of abstraction, with no FPGA experience needed.

Designers can get started with AMD Versal AI Edge Series Gen 2 and Versal Prime Series Gen 2 early access documentation and first-generation Versal evaluation kits and design tools available today. AMD expects availability of Versal Series Gen 2 silicon samples in the first half of 2025, followed by evaluation kits and System-on-Modules samples in mid-2025, and production silicon expected in late 2025.

Supporting Resources

- Learn more about the AMD Versal Series Gen 2 adaptive SoCs
- Check out the AMD blog on enabling single-chip intelligence
- Follow AMD on LinkedIn
- Follow AMD on Twitter

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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 including AMD Versal™Versal™ AI Edge Series Gen 2 adaptive system on chip (SoC); AMD Prime Series Gen 2 adaptive SoC; Versal AI Edge Series Gen 2 Powering Subaru's next-gen 'EyeSight' ADAS vision system, 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; economic and market uncertainty; cyclical nature of the semiconductor industry; market conditions of the industries in which AMD

products are sold; loss of a significant customer; public health crises, such as pandemics and epidemics; competitive markets in which AMD's products are sold; 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 cyberattacks; potential difficulties in operating AMD's newly upgraded enterprise resource planning system; 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, memory 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; long-term impact of climate change on AMD's business; impact of government actions and regulations such as export 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; evolving expectations from governments, investors, customers and other stakeholders regarding corporate responsibility matters; issues related to the responsible use of AI; impact of acquisitions, joint ventures and/or investments on AMD's business and AMD's ability to integrate acquired businesses; impact of any impairment of the combined company's assets; 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 and economic risks and natural disasters; future impairments of technology license purchases; AMD's ability to attract and retain qualified personnel; and AMD's stock price volatility. 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.

[i] Based on AMD internal performance and power projections for the AIE-ML v2 compute tile architecture in the Versal AI Edge series Gen 2 using the MX6 data type, compared to performance specifications and AMD Power Design Manager power results for the AIE-ML compute tile architecture featured in the first generation Versal AI Edge Series using INT8 data type. Assumptions: 2 row, 8 column sub-arrays. Operating conditions: 1 GHz Fmax, 0.7V AIE operating voltage, 100C junction temperature, typical process, 60% vector load, % activations = 0 < 10%. Actual performance will vary when final products are released in market. Performance projections as of March 2024. (VER-023).

[ii] Based on AMD internal pre-silicon performance estimates for combined total DMIPs of the Versal AI Edge Series Gen 2 and Versal Prime Series Gen 2 processing system when

configured with 8 Arm Cortex-A78AE applications cores @2.2 GHz and 10 Arm Cortex-R52 real-time cores @1.05 GHz, compared to the published combined total DMIPs of the processing system in the first-generation Versal AI Edge series and Versal Prime series. Versal AI Edge Series Gen 2 and Versal Prime Series Gen 2 operating conditions: highest available speed grade, 0.88V PS operating voltage, split-mode operation, maximum supported operating frequency. First-generation Versal AI Edge series and Versal Prime Series operating conditions: highest available speed grade, 0.88V PS operating voltage, maximum supported operating frequency. Actual DMIPs performance will vary when final products are released in market. Performance projections as of February 2024. (VER-027)

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