February 28, 2025

AMD Unveils Next-Generation AMD RDNA™ 4 Architecture with the Launch of AMD Radeon™ RX 9000 Series Graphics Cards

– The new AMD Radeon™ RX 9000 Series graphics cards deliver enthusiast-level gaming experiences supercharged by AI –

SANTA CLARA, Calif., Feb. 28, 2025 (GLOBE NEWSWIRE) -- AMD (NASDAQ: AMD) today unveiled the highly-anticipated AMD RDNA™ 4 graphics architecture with the launch of the AMD Radeon™ RX 9070 XT and RX 9070 graphics cards as a part of the Radeon™ RX 9000 Series. The new graphics cards feature 16GB of memory and extensive improvements designed for high-quality gaming graphics, including re-vamped raytracing accelerators and powerful AI accelerators for ultra-fast, cutting-edge performance, and breakthrough gaming experiences.

In a YouTube livestream, David McAfee, CVP and GM, Ryzen CPU and Radeon Graphics AMD, was joined by Andrej Zdravkovic, SVP of GPU Technologies and Engineering and Chief Software Officer, AMD, as well as Andy Pomianowski, CVP of Silicon Design Engineering, AMD, to discuss the outstanding performance and value proposition of the Radeon RX 9000 Series. In a related event in Zhuhai, China, Jack Huynh, SVP of the Client and Graphics Group, AMD, led a regional event for the new products. Huynh was joined by David Wang, SVP of GPU Technology and Engineering, AMD, and Lanzhi Wang, Senior Director of Product Management, AMD. The celebration was also marked by a customer celebration with Darren Grasby, EVP and Chief Sales Officer, AMD; Spencer Pan, President of AMD China, and partners including Asrock, ASUS, Gigabyte, Sapphire, Tul, Vastarmor, Veston, and XFX.

"Today, we're thrilled to unveil the AMD Radeon™ RX 9000 Series, a significant leap forward in graphics performance powered by our next-generation AMD RDNA™ 4 architecture," said McAfee. "These GPUs are designed to meet the demands of today's games, delivering enthusiast-class gaming experiences to gamers everywhere, while ready to support tomorrow's innovations. Through the power of advanced AI and Raytracing accelerators, we're not just improving frame rates – we're fundamentally enhancing the gaming experience. Offering incredible performance, AI-powered features, and next-gen display support at competitive price points, the Radeon RX 9000 Series delivers exceptional value for gamers looking to upgrade their systems.”

The RX 9000 Series, powered by the new AMD RDNA™ 4 architecture, offers gamers and creators a powerful blend of performance, visuals, and value. These advanced graphics cards redefine incredibly fast, high-resolution gaming with third-generation raytracing technology enabling realistic lighting, shadows, and reflections to deliver immersive gaming experiences while integrating a suite of AMD features to maximize hardware utilization.

Beyond gaming, the RX 9000 Series GPUs leverage new second-generation AI accelerators with up to 8x INT8 throughput per AI accelerator (for sparse matrices) to enhance creative applications and effectively run generative AI applications (vs. RDNA 3).[1] The RX 9000 Series GPUs also implement the newly redesigned AMD Radiance Display™ Engine & Enhanced Media Engine for broad display support and elevated quality in both recording and streaming.

Gaming For Today and Tomorrow
The Radeon RX 9000 Series unlocks new levels of performance while delivering a suite of new and enhanced features that improve the gaming experience. The Radeon RX 9070 Series offers 16GB of GDDR6 memory, allowing gamers to render the most exciting games of today and tomorrow at max settings. Compared to the previous generation RX 7900 GRE, the latest AMD Radeon RX 9070 is able to deliver over 20% more performance on average when gaming at 1440,[2] with the AMD Radeon RX 9070 XT extending that lead to over 40% on average.[3]

Both graphics cards make smart upgrades for gamers looking to future-proof their systems with a suite of next-gen features that will keep their experiences feeling fresh for years to come. Key features include:

- **Unified AMD RDNA™ 4 Compute Units** – Features up to 64 advanced AMD RDNA™ 4 compute units delivering up to 40% higher gaming performance than the previous-generation AMD RDNA™ 3 architecture.[3]
- **High-Performance Raytracing** – With 3rd generation Raytracing Accelerators, AMD RDNA 4 is able to deliver over 2x the Raytracing throughput per compute unit when compared to our previous generation.[1] Gamers with the latest AMD Radeon RX 9000 Series are ready for immersive gaming experiences with high-quality graphics, including realistic lighting, shadows, and reflections.
- **Supercharged AI Acceleration** – 2nd Generation AI Accelerators received several enhancements, allowing AMD RDNA™ 4 to efficiently process advanced AI models much faster than what was possible with RDNA 3,[4] through a combination of additional math pipelines for AI calculations, expanding the capabilities of the AI Accelerator to support new emerging data types such as FP8, and support for inference optimization techniques such as structured sparsity. These changes deliver up to 8x INT8 throughput per AI accelerator (for sparse matrices) per compute unit vs the previous generation.[1]
- **AMD FidelityFX™ Super Resolution Technology 4 (FSR 4)** – AMD's new cutting-edge ML-powered upscaling technology delivers high-quality boosted frames under even the most demanding workloads, such as 4K gaming with maximum raytracing settings and will be supported in over 30 games at launch.
- **Innovative suite of features through HYPR-RX** – Gamers can instantly improve their experience by activating AMD HYPR-RX and the suite of features within AMD Software, including AMD Radeon™ Super Resolution, AMD Fluid Motion Frames 2.1, AMD Radeon™ Anti-Lag, and AMD Radeon™ Boost. These features can all be tailored to gamers' hardware and preferences within AMD Software: Adrenalin Edition™ to drive increased FPS, responsiveness and efficiency.
- **AI-Enhanced AMD Software: Adrenalin Edition™ Application** – A new suite of software and resources designed to deliver an industry-leading AI user experience with AMD Radeon RX 9070 Series graphics cards. Keep your drivers and AI software up to

date with the new Software Manager. Find the answers to your questions about all things AMD or create free and private text and images with AMD Chat. Discover, download and install new and exciting AMD-partnered AI applications with the App Portal, and leverage AI to improve software quality with the AMD Image Inspector.
- **Ready for Next-Generation Displays** – AMD Radiance Display™ Engine supports the latest DisplayPort™ 2.1a and HDMI® 2.1b connections, enabling ultra-high resolutions and refresh rates up to 8K 144Hz, with 12-bit HDR and full REC2020 Color Space for incredible color accuracy. Paired with AMD FreeSync™ technology, gamers can enjoy tear-free, stutter-free gaming experiences on over 4000 compatible displays, including upcoming 4K 240Hz and 8K 144Hz DisplayPort™ 2.1 monitors.[5]

ML-Powered AMD FidelityFX™ Super Resolution 4 (AMD FSR 4) Upgrade

- Available exclusively on AMD Radeon™ RX 9000 Series graphics cards, AMD Software: Adrenalin Edition™ adds a new easy-to-use AMD FidelityFX™ Super Resolution 4 (AMD FSR 4) Upgrade feature that helps maximize performance at maximum quality in over 30 games at launch, with 75 coming later this year. AMD FSR 4 delivers a substantial image quality improvement over AMD FSR 3.1 upscaling, with the new ML-based algorithm helping to improve temporal stability, better preserve detail, and reduce ghosting.
- Utilizing features already built into the AMD FidelityFX™ API added when game developers integrate AMD FSR 3.1 into their games, AMD FSR 4 enables an easy upgrade for supported FSR 3.1 games and can be combined with existing in-game AMD FSR 3.1 advanced frame-generation and AMD Radeon™ Anti-Lag 2 for ultra-smooth, ultra-responsive gaming at incredible frame rates on AMD Radeon RX 9070 Series graphics cards.
- The new ML-accelerated AMD FSR 4 upscaling algorithm is trained using high-quality ground truth game data on AMD Instinct™ Accelerators and uses the hardware-accelerated FP8 Wave Matrix Multiply Accumulate (WMMA) feature of the AMD RDNA™ 4 architecture to ensure maximum upscaling quality while still providing a substantial game performance boost.

AMD Radeon RX 9000 Series Product Specifications

Model	Compute Units	GDDR6	Game Clock (GHz)	Boost Clock[6] (GHz)	Memory Interface	Infinity Cache	TBP	Price (USD SEP)
AMD Radeon RX 9070 XT	64	16 GB	2.4	Up to 3.0	256-bit	64 MB	304W	$599
AMD Radeon RX 9070	56	16 GB	2.1	Up to 2.5	256-bit	64 MB	220W	$549

Pricing and Availability

AMD Radeon RX 9000 Series graphics cards are expected to be available from leading board partners including Acer, ASRock, ASUS, Gigabyte, PowerColor, Sapphire, Vastarmor, XFX and Yeston beginning March 6th, 2025. The AMD Radeon RX 9070 XT has an SEP of $599 USD, while the AMD Radeon RX 9070 has an SEP of $549 USD.

Supporting Resources

- Learn more AMD Radeon Graphics cards here
- Learn about RDNA 4 here

- Learn more about AMD FidelityFX Super Resolution here
- Follow AMD on LinkedIn
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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 the AMD Radeon™ RX 9000 Series graphics cards, 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; Nvidia’s dominance in the graphics processing unit market and its aggressive business practices; competitive markets in which AMD’s products are sold; the cyclical nature of the semiconductor industry; market conditions of the industries in which AMD products are sold; AMD’s ability to introduce products on a timely basis with expected features and performance levels; loss of a significant customer; economic and market uncertainty; 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 generate revenue from its semi-custom SoC products; potential security vulnerabilities; potential security incidents including IT outages, data loss, data breaches and cyberattacks; uncertainties involving the ordering and shipment of AMD’s products; AMD’s reliance on third-party intellectual property to design and introduce new products; 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; restrictions imposed by agreements governing AMD's notes, the guarantees of Xilinx's notes and the revolving credit agreement; impact of acquisitions, joint ventures and/or strategic investments on AMD's business and AMD's ability to integrate acquired businesses; our ability to complete the acquisition of ZT Systems; impact of any impairment of the combined company's assets; 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.

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[1] Based on specifications of AMD RDNA 4 architecture compared to AMD RDNA 3 architecture as of December 2024. RX-1143

[2] Testing done by AMD performance labs February 2025, on a test system configured with Ryzen 7 9800X3D CPU, 32 GB DDR5-6000 Memory, Windows 11 Pro and Radeon RX 9070 (Driver 25.3.1 RC 31) vs. a similarly configured system with an RX 7900 GRE (Driver 25.3.1 RC31) comparing gaming performance at 4K in the following applications: Cyberpunk 2077 (DX12, Ultra), Cyberpunk 2077 (DX12, RT Ultra), Assassin's Creed Mirage (DX12, Ultra High), F1 24 (DX12, Ultra High), F1 24 (DX12, Ultra High RT), Starfield (DX12, Ultra), Far Cry 6 (DX12, Ultra), Far Cry 6 (DX12, Ultra RT), Forza Horizon 5 (DX12, Extreme), Forza Horizon 5 (DX12, RT Extreme), Watch Dogs Legion (DX12, Ultra), Watch Dogs Legion (DX12, RT Ultra), Horizon Forbidden West (DX12, Maxed), Horizon Zero Dawn Remastered (DX12, Maxed), God of War: Ragnarok (DX12, Ultra), Call of Duty: Black Ops 6 (DX12, Extreme), DOOM Eternal (Vulkan, Ultra Nightmare), DOOM Eternal (Vulkan, Ultra Nightmare RT), Total War: Warhammer 3 (DX11, Ultra), Dying Light 2 (DX12, High), Dying Light 2 (DX12, High Raytracing), Alan Wake 2 (DX12, High), Alan Wake 2 (DX12, High w/Med RT), Avatar: Frontiers of Pandora (DX12, Ultra), Hitman 3 (DX12, Ultra), Hitman 3 (DX12, Ultra RT), The Witcher 3 (DX12, Ultra+), The Witcher 3 (DX12, RT Ultra), Metro Exodus Enhanced Edition (DX12, Extreme), Black Myth: Wukong (DX12, Cinematic), Black Myth: Wukong (DX12, Cinematic RT) Baldur's Gate 3 (DX11, Ultra), Ghost of Tsushima (DX12, Very High), Star Wars Outlaws (DX12, Ultra RT), Warhammer 40,000: Space Marine 2 (DX12, Ultra), Control (DX12, High), Control (DX12, High RT), Dragon Age: The Veilguard (DX12, Ultra), Dragon Age: The Veilguard (DX12, Ultra RT), Resident Evil 4 (DX12, Max), Resident Evil 4 (DX12, Max RT), Marvel's Spider-Man 2 (DX12, Maxed), Marvel's Spiderman 2 (DX12, Maxed RT), Microsoft Flight Simulator 2024 (DX12, Ultra), The Last of Us: Part 1 (DX12, Ultra), S.T.A.L.K.E.R. 2: Heart of Chornobyl (DX12, Epic), Final Fantasy

XVI Demo (DX12, Ultra). Testing conducted with latest game builds as of February 5, 2025 (Marvel's Spider-Man 2, Microsoft Flight Simulator 2024, The Last of Us: Part 1, and Forza Horizon 5 using latest builds as of February 14th, 2025). System manufacturers may vary configurations, yielding different results. RX-1176.

[3] Testing done by AMD performance labs February 2025, on a test system configured with Ryzen 7 9800X3D CPU, 32 GB DDR5-6000 Memory, Windows 11 Pro and Radeon RX 9070 XT (Driver 25.3.1 RC 31) vs. a similarly configured system with an RX 7900 GRE (Driver 25.3.1 RC31) comparing gaming performance at 4K in the following applications: Cyberpunk 2077 (DX12, Ultra), Cyberpunk 2077 (DX12, RT Ultra), Assassin's Creed Mirage (DX12, Ultra High), F1 24 (DX12, Ultra High), F1 24 (DX12, Ultra High RT), Starfield (DX12, Ultra), Far Cry 6 (DX12, Ultra), Far Cry 6 (DX12, Ultra RT), Forza Horizon 5 (DX12, Extreme), Forza Horizon 5 (DX12, RT Extreme), Watch Dogs Legion (DX12, Ultra), Watch Dogs Legion (DX12, RT Ultra), Horizon Forbidden West (DX12, Maxed), Horizon Zero Dawn Remastered (DX12, Maxed), God of War: Ragnarok (DX12, Ultra), Call of Duty: Black Ops 6 (DX12, Extreme), DOOM Eternal (Vulkan, Ultra Nightmare), DOOM Eternal (Vulkan, Ultra Nightmare RT), Total War: Warhammer 3 (DX11, Ultra), Dying Light 2 (DX12, High), Dying Light 2 (DX12, High Raytracing), Alan Wake 2 (DX12, High), Alan Wake 2 (DX12, High w/Med RT), Avatar: Frontiers of Pandora (DX12, Ultra), Hitman 3 (DX12, Ultra), Hitman 3 (DX12, Ultra RT), The Witcher 3 (DX12, Ultra+), The Witcher 3 (DX12, RT Ultra), Metro Exodus Enhanced Edition (DX12, Extreme), Black Myth: Wukong (DX12, Cinematic), Black Myth: Wukong (DX12, Cinematic RT) Baldur's Gate 3 (DX11, Ultra), Ghost of Tsushima (DX12, Very High), Star Wars Outlaws (DX12, Ultra RT), Warhammer 40,000: Space Marine 2 (DX12, Ultra), Control (DX12, High), Control (DX12, High RT), Dragon Age: The Veilguard (DX12, Ultra), Dragon Age: The Veilguard (DX12, Ultra RT), Resident Evil 4 (DX12, Max), Resident Evil 4 (DX12, Max RT), Marvel's Spider-Man 2 (DX12, Maxed), Marvel's Spiderman 2 (DX12, Maxed RT), Microsoft Flight Simulator 2024 (DX12 Ultra), The Last of Us: Part 1 (DX12, Ultra), S.T.A.L.K.E.R. 2: Heart of Chornobyl (DX12, Epic), Final Fantasy XVI Demo (DX12, Ultra). Testing conducted with latest game builds as of February 5, 2025 (Marvel's Spider-Man 2, Microsoft Flight Simulator 2024, The Last of Us: Part 1, and Forza Horizon 5 using latest builds as of February 14th, 2025). System manufacturers may vary configurations, yielding different results. RX-1179.

[4] Testing by AMD, as of February 2025 using Amuse 2.3.15 and Procyon 2.10.1542 64. Models used: SD 1.5, SDXL, ComputerVision FP16, and FLUX Schnell. System configuration: AMD Ryzen 7 9800X3D, 32GB 6000 MT/s DDR5 RAM, 2TB SSD with an AMD Radeon RX 9070 XT GPU vs. a similarly configured system with a Radeon RX 7900 GRE GPU. Driver 25.3.1 RC 31. Performance may vary. RX-1168.

[5] AMD FreeSync/FreeSync Premium/FreeSync Premium Pro technology requires AMD Radeon graphics and a display certified by AMD. See www.amd.com/freesync for complete details. Confirm capability with your system or display manufacturer before purchase. GD-127.

[6] Boost Clock Frequency is the maximum frequency achievable on the GPU running a bursty workload. Boost clock achievability, frequency, and sustainability will vary based on several factors, including but not limited to: thermal conditions and variation in applications and workloads. GD-151.

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