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# **AMD Ryzen 4000 Series Desktop Processors with AMD Radeon Graphics Set to Deliver Breakthrough Performance for Commercial and Consumer Desktop PCs**

**New OEM and system integrator (SI) designs coming Q3 2020, including innovative small form factor enterprise PCs, towers and gaming desktops**

SANTA CLARA, Calif., July 21, 2020 (GLOBE NEWSWIRE) -- Today, [AMD](#) (NASDAQ: AMD) announced the world's first and most advanced<sup>1</sup> 7nm x86 desktop processors with built-in graphics for consumer and commercial PC markets<sup>2</sup>. The AMD Ryzen™ 4000 Series Desktop Processors with Radeon™ Graphics and the AMD Athlon™ 3000 Series Desktop Processors with Radeon™ Graphics feature the most advanced processor core technology<sup>1</sup> on the market combined with the best graphics performance available in a desktop processor<sup>2</sup>.

The new AMD Ryzen™ 4000 G-Series Desktop Processors deliver impressive generational leaps in performance<sup>3</sup> and amazing power efficiency for consumers, gamers, streamers and creators. Built for modern business PCs, AMD Ryzen 4000 Series Desktop Processors with PRO technologies offer enterprise-class solutions, advanced technology and multi-layered security features. Ryzen 4000 Series Desktop Processors are built on the industry-leading 7nm process and “Zen 2” core architecture, offering unmatched user experiences and power efficiency in the state-of-the art AMD socket AM4 platform.

“AMD is dedicated to continuously pushing the boundaries of processing power and graphics performance to deliver amazing PC experiences for all customers, from mainstream PC users, to gamers, streamers and enterprise users,” said Saeid Moshkelani, senior vice president and general manager, client business unit, AMD. “Today, in association with our longstanding PC partners, we are excited to launch the AMD Ryzen 4000 Series Desktop Processors. The ultimate desktop processors with built-in graphics delivering amazing performance for work or play.”

## **AMD Ryzen 4000 G-Series Desktop Processors with AMD Radeon Graphics**

With responsive performance and flawless visuals with Radeon graphics built-in, consumers can now enjoy enthusiast-level performance for gaming and content creation in AMD Ryzen 4000 G-Series processor powered pre-built desktops without the need for a discrete graphics card. Additionally, the new AMD Athlon™ 3000 G-Series Desktop Processors

provide responsive performance and modern features for entry-level PCs using the same “Zen” core architecture and built-in Radeon graphics as the high-performance AMD Ryzen Desktop Processor family.

The AMD Ryzen™ 4700G Desktop Processor offers:

- Up to 2.5X multi-threaded performance compared to previous generation<sup>5</sup>
- Up to 5% greater single-thread performance than the Intel Core i7-9700<sup>6</sup>
- Up to 31% greater multithreaded performance than the Intel Core i7-9700<sup>7</sup>
- Up to 202% better graphics performance than the Intel Core i7-9700<sup>8</sup>

MODEL	CORES / THREADS	TDP (Watts)	BOOST <sup>9</sup> /BASE FREQ. (GHz)	GPU CORES	CACHE (MB)
AMD Ryzen™ 7 4700G	8C/16T	65W	Up to 4.4 / 3.6 GHz	8	12 MB
AMD Ryzen™ 7 4700GE	8C/16T	35W	Up to 4.3 / 3.1 GHz	8	12 MB
AMD Ryzen™ 5 4600G	6C/12T	65W	Up to 4.2 / 3.7 GHz	7	11 MB
AMD Ryzen™ 5 4600GE	6C/12T	35W	Up to 4.2 / 3.3 GHz	7	11 MB
AMD Ryzen™ 3 4300G	4C/8T	65W	Up to 4.0 / 3.8 GHz	6	6 MB
AMD Ryzen™ 3 4300GE	4C/8T	35W	Up to 4.0 / 3.5 GHz	6	6 MB
Athlon™ Gold 3150G	4C / 4T	65W	3.9 GHz	3	6 MB
Athlon™ Gold 3150GE	4C / 4T	35W	3.8 GHz	3	6 MB
Athlon™ Silver 3050GE	2C / 4T	35W	3.4 GHz	3	5 MB

### AMD Ryzen 4000 Series Desktop Processors with PRO technologies

Built for the modern business environment, the new AMD Ryzen PRO 4000 Series and AMD Athlon PRO 3000 Series Desktop Processors offer a new standard for modern business PCs. Featuring advanced performance and modern security features with layers of protection, they are designed to keep up with today’s fast-paced, remote work business environments. With security features such as AMD Memory Guard and AMD Secure Processor alongside seamless manageability features, businesses can rest assured AMD-powered systems are easy to administer on an enterprise-level scale and deliver reliable security features.

The AMD Ryzen PRO 4000 Series Desktop Processors offer:

- Up to 31% faster performance than the competition<sup>9</sup>
- Up to 43% more performance per watt than the competition<sup>10</sup>

MODEL	CORES/ THREADS	TDP (Watts)	BOOST <sup>9</sup> / BASE FREQ. (GHz)	Graphics Cores	L2/L3 CACHE (MB)
AMD Ryzen™ 7 PRO 4750G	8C/16T	65W	Up to 4.4/3.6 GHz	8	12MB
AMD Ryzen™ 7 PRO 4750GE	8C/16T	35W	Up to 4.3/3.1 GHz	8	12MB
AMD Ryzen™ 5 PRO 4650G	6C/12T	65W	Up to 4.2/3.7 GHz	7	11MB
AMD Ryzen™ 5 PRO 4650GE	6C/12T	35W	Up to 4.2/3.3 GHz	7	11MB
AMD Ryzen™ 3 PRO 4350G	4C/8T	65W	Up to 4.0/3.8 GHz	6	6MB
AMD Ryzen™ 3 PRO 4350GE	4C/8T	35W	Up to 4.0/3.5 GHz	6	6MB
AMD Athlon™ Gold PRO 3150G	4C/4T	65W	Up to 3.9/3.5 GHz	3	6MB
AMD Athlon™ Gold PRO 3150GE	4C/4T	35W	Up to 3.8/3.3 GHz	3	6MB
AMD Athlon™ Silver PRO 3125GE	2C/4T	35W	Up to 3.4/3.4 GHz	3	5MB

### Partner Quotes

“Both our consumer and commercial customers expect PCs that deliver a blend of best-in-class performance and value,” said Mike Nash, chief technologist and head of Customer Experience and Portfolio Strategy, HP Inc. “HP offers a comprehensive AMD portfolio that offers incredible processing power and best-in-class integrated graphics across our consumer and gaming PCs as well as flexible functionality and enterprise-grade security in our commercial PCs to keep business users productive everywhere.”

“At Lenovo™, we are always listening to our customers’ pain points for new opportunities to transform how they feel about the PC desktop experience,” said Dilip Bhatia, Chief Customer Experience Officer at Lenovo. “Our IdeaCentre™ and ThinkCentre™ series serve our widest range of consumer and commercial customers for a reason, every desktop user wants smoother performance, more storage for files, and reliable graphics whether they’re working from home or at the office—but they also want sleek style. By bringing the speed of next-level AMD Ryzen Desktop Processors to our unique and more compact designs in several form factors, we are delivering more choice for better experiences without sacrificing style. The upgraded Lenovo IdeaCentre 5 with soft textured slide design is powered by AMD Ryzen 4700G Desktop Processor with Radeon Graphics options to provide the speed you need for premium entertainment and productivity tasks, while running cool and quiet. Featuring Ryzen PRO 4000 Series Desktop Processors, the Lenovo ThinkCentre M75t, M75s and M75q business PCs will be updated later this fall. The new desktops provide the flexibility of different form factors with layers of modern security features and manageability solutions for simpler deployment and IT management.”

### Availability

The Ryzen 4000 G-Series Desktop Processors are expected to be available in systems from OEM partners including Lenovo and HP starting in Q3 2020. The Ryzen PRO 4000 Series Desktop Processors will be available from SIs at launch on July 21<sup>st</sup> and are expected in systems from OEM partners starting later this fall. The Ryzen 4000 G-Series, Athlon 3000 G-Series, Ryzen PRO 4000 Series and Athlon PRO 3000 Series Desktop Processors are exclusively available from SIs and OEM partners.

## Supporting Resources

- Learn more about [AMD Ryzen Desktop Processors with Radeon Graphics](#)
- Learn more about [AMD Athlon Desktop Processors with Radeon Graphics](#)
- Learn more about [AMD Ryzen PRO Desktop Processors](#)
- Learn more about [AMD Athlon PRO Desktop Processors](#)
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## About AMD

For 50 years AMD has driven innovation in high-performance computing, graphics and visualization technologies — the building blocks for gaming, immersive platforms and the datacenter. Hundreds of millions of consumers, leading Fortune 500 businesses and cutting-edge scientific research facilities around the world rely on AMD technology daily to improve how they live, work and play. AMD employees around the world are focused on building great products that push the boundaries of what is possible. For more information about how AMD is enabling today and inspiring tomorrow, visit the AMD (NASDAQ:AMD) [website](#), [blog](#), [Facebook](#) and [Twitter](#) pages.

## Cautionary Statement

This press release contains forward-looking statements concerning Advanced Micro Devices, Inc. (AMD) such as the features, functionality, timing, availability, expectations and benefits of the Ryzen 4000 G-Series, Athlon 3000 G-Series, Ryzen PRO 4000 Series and Athlon PRO 3000 Series Desktop Processors and expectations with OEM partners, 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," "intends," "believes," "expects," "may," "will," "should," "seeks," "intends," "plans," "pro forma," "estimates," "anticipates," or the negative of these words and phrases, other variations of these words and phrases or comparable terminology. Investors are cautioned that the forward-looking statements in this document are based on current beliefs, assumptions and expectations, speak only as of the date of this document 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 may limit AMD's ability to compete effectively; AMD relies on third parties to manufacture its products, and if they are unable to do so on a timely basis in sufficient quantities and using competitive technologies, AMD's business could be materially adversely affected; failure to achieve expected manufacturing yields for AMD's products could negatively impact its financial results; the success of AMD's business is dependent upon its ability to introduce products on a timely basis with features and performance levels that provide value to its customers while supporting and coinciding with significant industry transitions; if AMD cannot generate sufficient revenue and operating cash flow or obtain external financing, it may face a cash shortfall and be unable to make all of its planned investments in research and development or other strategic investments; the loss of a significant customer may have a material adverse effect on AMD; AMD's receipt of

revenue from its semi-custom SoC products is dependent upon its technology being designed into third-party products and the success of those products; global economic and market uncertainty may adversely impact AMD's business and operating results; the ongoing novel coronavirus (COVID-19) pandemic could materially adversely affect AMD's business, financial condition and results of operations; AMD's worldwide operations are subject to political, legal and economic risks and natural disasters which could have a material adverse effect on AMD; government actions and regulations such as export administration regulations, tariffs and trade protection measures, may limit AMD's ability to export its products to certain customers; AMD products may be subject to security vulnerabilities that could have a material adverse effect on AMD; IT outages, data loss, data breaches and cyber-attacks could compromise AMD's intellectual property or other sensitive information, be costly to remediate and cause significant damage to its business, reputation and operations; uncertainties involving the ordering and shipment of AMD's products could materially adversely affect it; AMD's operating results are subject to quarterly and seasonal sales patterns; the agreements governing AMD's notes and the Secured Revolving Facility impose restrictions on AMD that may adversely affect its ability to operate its business; the markets in which AMD's products are sold are highly competitive; the conversion of the 2.125% Convertible Senior Notes due 2026 may dilute the ownership interest of its existing stockholders, or may otherwise depress the price of its common stock; the demand for AMD's products depends in part on the market conditions in the industries into which they are sold. Fluctuations in demand for AMD's products or a market decline in any of these industries could have a material adverse effect on its results of operations; AMD's ability to design and introduce new products in a timely manner is dependent upon third-party intellectual property; AMD depends on third-party companies for the design, manufacture and supply of motherboards, software, memory and other computer platform components to support its business; if AMD loses Microsoft Corporation's support for its products or other software vendors do not design and develop software to run on AMD's products, its ability to sell its products could be materially adversely affected; and AMD's reliance on third-party distributors and AIB partners subjects it to certain risks. 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 Quarterly Report on Form 10-Q for the quarter ended March 28, 2020.

"Zen 2" is a codename for AMD architecture, and is not a product name. GD-122

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<sup>1</sup> Advanced ' is defined as 7nm process technology and AMD "Zen 2" core as of April 7th, 2020. RZG2-1

<sup>2</sup> Based on AMD Labs testing May 2020 using the 3D Mark TimeSpy benchmark to measure the graphics performance of the Ryzen 7 4700G, Ryzen 5 4600G, and Ryzen 3 4300G desktop processors vs. the Core i7-9700, Core i5-9400, and Core i3-9100 Intel desktop processors. Performance may vary. 3DMark is a registered trademark of Futuremark Corporation. RZG2-2

<sup>3</sup> Based on AMD Labs testing May 2020 using the Cinebench R20 nT benchmark to measure the multi-thread performance of the Ryzen 7 4700G, Ryzen 5 4600G, and Ryzen 3 4300G desktop processors vs. the Ryzen 5 3400G, and Ryzen 3 3200G. Performance will

vary. RGZ2-3

<sup>4</sup> Based on AMD Labs testing in June 2020, comparing the Ryzen 7, 4700G, Ryzen 5 4600G, and Ryzen 3 4300G to the Core i7-9700, Core i5-9500, and Core i3-9100, respectively, using the Cinebench R20 nT and R20 1T to measure CPU performance, and the 3DMark Timespy benchmark to measure GPU performance. Performance may vary. 3DMark is a registered trademark of Futuremark Corporation. RZG2-56

<sup>5</sup> Based on AMD Labs testing May 2020 using the Cinebench R20 nT benchmark to measure the multi-thread performance of the Ryzen 7 4700G, Ryzen 5 4600G, and Ryzen 3 4300G desktop processors vs. the Ryzen 5 3400G, and Ryzen 3 3200G. Performance will vary. RZG2-3

<sup>6</sup> Based on testing by AMD performance labs on 6.9.20 using the Cinebench R20 1T benchmark. Performance may vary. RZG2-6.

<sup>7</sup> Based on testing by AMD performance labs on 6.9.20 using the Cinebench R20 nT benchmark. Performance may vary. RZG2-6.

<sup>8</sup> Based on testing by AMD performance labs on 6.9.20 using the 3DMark Time Spy benchmark test. Performance may vary. 3DMark is a trademark of Futuremark Corporation. RZG2-9.

<sup>9</sup> Max boost for AMD Ryzen Processors is the maximum frequency achievable by a single core on the processor running a bursty single-threaded workload. Max boost will vary based on several factors, including, but not limited to: thermal paste; system cooling; motherboard design and BIOS; the latest AMD chipset driver; and the latest OS updates. GD-150

<sup>10</sup> As of 4/9/2020. Testing by AMD Labs using the Cinebench R20 nT benchmark to test the multi-threaded performance of the Ryzen 7 Pro 4750G versus the Core i7-9700 vPro. Results may vary. RPD-06

<sup>11</sup> As of 5/8/20. Testing by AMD Labs using the Ryzen 7 PRO 4750G vs Intel Core i7-9700 vPro in the Cinebench R20nT benchmark test: Performance per Watt based on Cinebench R20nT points delivered per watt of system power consumption during test. Results may vary. RPD-07

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