September 30, 2019

AMD Announces Worldwide Availability of AMD Ryzen™ PRO 3000 Series Processors Designed to Power the Modern Business PC

- *Powerful performance for energy-efficient business desktop PCs from processors offering up to 12 cores –*
- *Strong portfolio of enterprise offerings from global commercial PC manufacturers including HP and Lenovo –*

SANTA CLARA, Calif., Sept. 30, 2019 (GLOBE NEWSWIRE) -- Today, AMD (NASDAQ: AMD) announced the global availability of its new AMD Ryzen™ PRO 3000 Series desktop processor lineup, along with new AMD Ryzen™ PRO processors with Radeon™ Vega Graphics and AMD Athlon™ PRO processors with Radeon™ Vega Graphics. The AMD Ryzen PRO and Athlon PRO desktop processors combine powerful performance, built-in security features, and commercial-grade reliability to get the job done. Starting in Q4 2019, robust enterprise desktops from HP and Lenovo powered by AMD Ryzen PRO and Athlon PRO desktop processors are slated to be available.

“The launch of the Ryzen PRO 3000 Series processors for commercial and small business users is the latest demonstration of our commitment to technology leadership in 2019,” said Saied Moshkelani, senior vice president and general manager, AMD Client Compute. “Designed specifically to efficiently data-crunch, design, compose, and create – AMD Ryzen PRO and Athlon PRO processors accelerate enhanced business productivity while offering protection safeguards with built-in security features, such as full system memory encryption and a dedicated, on-die security processor.”

Powering versatile designs from both HP and Lenovo and designed to fit virtually every office environment, the AMD Ryzen 9 PRO 3900, AMD Ryzen 7 PRO 3700, and AMD Ryzen 5 PRO 3600 CPUs are based on the world’s most advanced 7nm “Zen 2” core architecture. Offering up to 12 cores and 24 threads – the most of any business processor[1] only with the AMD Ryzen 9 PRO 3900 processor – they provide a high-performance and high-efficiency design built for even the most rigorous business environments and are power efficient without sacrificing performance.

Supreme Productivity

AMD Ryzen PRO 3000 Series processors deliver highly competitive performance for business desktops;

- Ryzen 9 PRO 3900 and Ryzen 7 PRO 3700 brings up to 2X faster performance than the competition at the same power, ensuring a cool and quiet PC usage environment[2];

- Ryzen PRO processors offer up to an estimated 127% faster data-crunching versus the competition, from solving equations to running simulations in various industries including financial services, life science, and energy [3];
- Technology leadership with the most advanced 7nm SoC and “Zen 2” core architecture, up to 12 cores at only 65W TDP for select models.[4]

Powerful Protection

Every AMD Ryzen PRO processor contains a powerful, built-in security co-processor that runs AMD GuardMI technology, which is dedicated to helping protect users’ PCs. AMD Memory Guard[5] helps defend against cold boot attacks with full system memory encryption, and AMD technology supports and complements OEM security features and Windows Security, including Lenovo ThinkShield™ and HP Sure Start™, among others.

OEM Support

In the coming months, enterprise customers will be able to purchase Ryzen PRO processor-based systems from top PC vendors including HP and Lenovo.

HP EliteDesk 705 G5 Series with AMD

“HP continues to strengthen its commitment to innovative PC technologies and collaborating with our partners has never been more important,” said Andy Rhodes, Global Head Commercial Personal Systems, HP Inc. “Powered by AMD Ryzen PRO processors, our HP EliteDesk 705 G5 series deliver the robust performance and productivity that today’s workforce requires, in industry-leading compact designs.”

The high-performance HP EliteDesk 705 G5 Series offers enterprise-class productivity with the latest AMD Ryzen™ PRO processors in your choice of form factors.

- The **HP EliteDesk 705 G5 Small Form Factor** is the world’s first AMD desktop PC with dual-M.2 drive capability[6] and delivers impressive value with powerful performance, expandability, manageability and resilient security for the modern workplace. The HP EliteDesk 705 G5 SFF will be available in September starting at $669 USD.
- The **HP EliteDesk 705 G5 Desktop Mini** is the smallest and most powerful AMD Ultra Small Form Factor (USFF) business-class PC[7]. With many configurable options, and built-in security and manageability in a compact design, this desktop mini pairs with the HP Mini-in-One 24 Display[8] to revamp the modern workplace. The HP EliteDesk 705 G5 DM will be available in November starting at $679 USD.

Lenovo ThinkCentre Desktops with AMD

Lenovo ThinkCentre desktops have been available with AMD processors - offering great performance, security and energy-saving features - for more than ten years. That heritage continues with the ThinkCentre M75s-1 small form factor (SFF) and M75q-1 Tiny form factor offering the latest Ryzen PRO processors, up to 12-cores on the SFF model.

The clean and sleek look and feel is backed up with strong security and manageability features. New for 2019 AMD platforms is the Smart Power-On feature allowing users to mount the desktops in more flexible locations, such as a wall, under a desk or behind a

monitor. Simply press ALT+P on the keyboard to power on the system. The M75q-1 Tiny also now includes a USB Type-C port and an HDMI port as standard and the option of two additional user-defined ports.

“Our customers want smart and secure desktops to meet the day-to-day rigors of workplace demands with the flexibility to adapt to modern workspaces,” said Tom Butler, executive director, WW commercial portfolio and product management, Lenovo. “We equip select ThinkCentre models with state-of-the-art AMD processors that deliver great performance and security features in one device.”

AMD Ryzen™ PRO desktop processors:

Model	Cores/ Threads	TDP[9] (Watts)	Boost/Base Freq.[10] (GHz)	L2 + L3 Cache (MB)
AMD Ryzen™ 9 PRO 3900	12 / 24	65W	4.3 / up to 3.1	70
AMD Ryzen™ 7 PRO 3700	8 / 16	65W	4.4 / up to 3.6	36
AMD Ryzen™ 5 PRO 3600	6 / 12	65W	4.2 / up to 3.6	35

AMD Ryzen™ PRO desktop processors with Radeon™ Vega Graphics:

Model	Cores/ Threads	TDP[9] (Watts)	Boost/Base Freq.[10] (GHz)	L2 + L3 Cache (MB)	Graphics Compute Units
AMD Ryzen™ 5 PRO 3400G	4 / 8	65W	4.2 / up to 3.7	6	11 CUs
AMD Ryzen™ 5 PRO 3400GE	4 / 8	35W	4.0 / up to 3.3	6	11 CUs
AMD Ryzen™ 3 PRO 3200G	4 / 4	65W	4.0 / up to 3.6	6	8 CUs
AMD Ryzen™ 3 PRO 3200GE	4 / 4	35W	3.8 / up to 3.3	6	8 CUs

AMD Athlon™ PRO desktop processors with Radeon™ Vega Graphics:

Model	Cores/ Threads	TDP[9] (Watts)	Boost/Base Freq.[10] (GHz)	L2 + L3 Cache (MB)	Graphics Compute Units
AMD Athlon™ PRO 300GE	2 / 4	35W	3.4 / up to 3.4	5	3 CUs

Supporting Resources

- Learn more about the new AMD Ryzen PRO processors
- Learn more about the new AMD Athlon PRO processors
- Become a fan of AMD on Facebook
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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) including the features, functionality, availability, timing, deployment and

expectations of AMD's products, including future offerings with AMD Ryzen™ PRO processor-based systems from PC vendors, 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 has a wafer supply agreement with GLOBALFOUNDRIES Inc. (GF) with obligations to purchase all of its microprocessor and APU product requirements, and a certain portion of its GPU product requirements, manufactured at process nodes larger than 7 nanometer from GF with limited exceptions. If GF is not able to satisfy AMD's manufacturing requirements, AMD's business could be adversely impacted; 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; AMD's 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; AMD's operating results are subject to quarterly and seasonal sales patterns; AMD may not be able to generate sufficient cash to service its debt obligations or meet its working capital requirements; AMD has a large amount of indebtedness which could adversely affect its financial position and prevent it from implementing its strategy or fulfilling its contractual obligations; the agreements governing AMD's notes and the Secured Revolving Line of Credit impose restrictions on AMD that may adversely affect AMD's ability to operate its business; the markets in which AMD's products are sold are highly competitive; AMD's worldwide operations are subject to political, legal and economic risks and natural disasters, which could have a material adverse effect on it; the conversion of the 2.125% Convertible Senior Notes due 2026 may dilute the ownership interest of AMD's existing stockholders, or may otherwise depress the price of its common stock; uncertainties involving the ordering and shipment of AMD's products could materially adversely affect it; 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 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 add-in-board 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 June 29, 2019.

[1] Based on AMD analysis, August 2019. Business desktop processor is defined as a processor designed for desktop PCs which includes full, integrated manageability and security features. [RP3-1]

[2] Testing as of 08/08/2019 by AMD Performance Labs using the Cinebench R20 nT benchmark test. Results may vary. RP3-4

[3] Testing as of 09/20/2019 by AMD Performance Labs using the SPECworkstation™ 3.0.1 benchmark.
Scores are estimates based on AMD internal lab measurements/modeling and may vary. System Configurations: AMD Ryzen™ 7 PRO 3700, 1x8GB DDR4 2667MHz, RX550 4GB GPU (driver 26.20.13001.16003), Samsung 970 PRO 512GB, Windows 10 x64 v1903 | Intel Core i7-9700, 1x8GB DDR4 2667MHz, RX550 4GB GPU (driver 26.20.13001.16003), Samsung 970 PRO 512GB, Windows 10 x64 v1903 | Test Results: Estimated SPECworkstation™ 3.0.1 Financial Services Composite Score: Core i7-9700: 1.29 | Ryzen™ 7 PRO 3700: 2.92 | Estimated SPECworkstation™ 3.0.1 Life Sciences Composite Score: Core i7-9700: 1.21 | Ryzen™ 7 PRO 3700: 1.49 | Estimated SPECworkstation™ 3.0.1 Energy Composite Score: Core i7-9700: 0.81 | Ryzen™ 7 PRO 3700: 1.04 SPEC® and benchmark SPECworkstation™ are registered trademarks of Standard Performance Evaluation Corporation. Additional information about the SPEC® benchmarks can be found at www.spec.org/gwpg. Results may vary. RP3-7

[4] On Ryzen 9 PRO 3900, Ryzen 7 PRO 3700 and Ryzen 5 PRO 3600 Processors

[5] For general business laptops and desktops, the AMD Memory Guard feature is included in AMD PRO processors. PP-3

[6] Based on business class desktops with AMD Pro processors, Windows Pro, up to 11 USB ports, TPM with two M.2 slots for storage as of September 2019.

[7] Based on business class USFF desktops having less than 2 liters in volume, with 9th Gen Intel processors or AMD Pro processors, integrated VESA mount and VGA, 6 USB Ports, Windows 10 Pro, and TPM. Smallest based on volume, most powerful based on processor, graphics, memory as of September 2019. These statements have not been independently verified by AMD.

[8] HP Mini-in-One 24 Display sold separately. PC must be configured with optional USB-C™ with 100W Power Delivery card.

[9] Though both are often measured in watts, it is important to distinguish between thermal and electrical watts. Thermal wattage for processors is conveyed via thermal design power (TDP). TDP is a calculated value that conveys an appropriate thermal solution to achieve the intended operation of a processor. Electrical watts are not a variable in the TDP calculation. By design, electrical watts can vary from workload to workload and may exceed thermal watts. GD-109

[10] Max boost for AMD Ryzen PRO 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.

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Source: Advanced Micro Devices