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New AMD Ryzen Threadripper PRO 5000 WX-Series Processors are the Ultimate Workstation Processors for Professionals with Up-to Double the Performance of Competing Solutions

SANTA CLARA, Calif., March 08, 2022 (GLOBE NEWSWIRE) -- Today, AMD (NASDAQ: AMD) announced the new AMD Ryzen™ Threadripper™ PRO 5000 WX-Series workstation processors, led by the 64-core, 128-thread AMD Ryzen Threadripper PRO 5995WX. Building on the best-selling and award-winning Ryzen Threadripper PRO 3000 WX processors, the Ryzen Threadripper PRO 5000 WX-Series processors bring dominant, full-spectrum performance leadership across multiple workstation workloads due to the performance and efficiency of the "Zen 3" core architecture and increased processor frequencies.[1,2] Today also marks the launch of the first workstations powered by the new AMD Ryzen Threadripper PRO 5000 WX-Series processors – the Lenovo ThinkStation P620 featuring all five of the AMD Ryzen Threadripper PRO 5000 WX-Series processor models – providing workstation users with industry-leading performance.[2]

"For many workstation users, success is dependent on having the right tools to complete jobs quickly, which is why they need hardware that provides unmatched performance and gives them a competitive edge," said Saeid Moshkelani, senior vice president and general manager, client business unit. "We created the Ryzen Threadripper PRO Ryzen 5000 WX-Series processors with this in mind, bringing professionals the incredible performance and efficiency needed to run today's most demanding workstation applications faster than ever before."

"We have rendered an incredible amount of frames with EPYC™ server processors and a Threadripper Pro 5000WX processor. The magic is in the iterations. A single visual effects shot could have hundreds or more updates and it takes immense processing power to turn around these iterations quickly," said Paul Lambert, two-time Academy Award winner and VFX Supervisor for *Dune*. "We've been lucky to demo the new Threadripper PRO. We're seeing a 2X improvement on our CPU render times."

"Threadripper PRO 5000 WX-Series were the best performing processors we have tested for ILM StageCraft," said Nick Rasmussen, Principal Engineer and Architect, StageCraft, Industrial Light & Magic. "It's significantly faster than the equivalent Threadripper PRO 3000 WX processor, and we saw up to a 2X or more speedup on CPU heavy loads versus our performance baseline. This high performance coupled with the extensive I/O capabilities makes Threadripper PRO 5000 WX-Series an ideal workstation processor for our cutting-edge virtual production work."

“Over the last two years, we’ve seen tremendous market demand for the ThinkStation P620 across industries where our customers depend on us to provide professional-grade workstations that can not only keep pace, but outperform what was previously possible,” said Rob Herman, Vice President of Lenovo’s Workstation and Client AI Business Unit. “We’re excited to continue working closely with AMD to bring the next generation of the ThinkStation P620, powered by the latest Ryzen Threadripper PRO processors, to artists, architects, engineers and other demanding professional users. With this new system, our customers can accelerate increasingly complex workflows in order to get more done in less time.”

"Ever since their introduction, the Ryzen Threadripper CPUs have offered impressive rendering performance,” said Vlado Koylazov, Academy Award Winner and Co-Founder, Chaos. “The new Threadripper PRO 5000 WX-Series processors further improve on this, allowing 3D artists and architectural visualization professionals unparalleled ability to accomplish even more in less time.”

“This year we've began migrating all global studios production systems to AMD, with EPYC processors powering our render farms and Threadripper PRO processors powering our workstations,” said Sayma Mishra, Chief DCC Technology Officer, Binyan Studios. “The new capabilities and performance have been a game changer for Binyan Studios and AMD Ryzen Threadripper PRO 5000 WX-Series processors take us to new heights.”

AMD Ryzen Threadripper PRO Processors

The AMD Threadripper processor lineup redefined the workstation market when it launched in 2017, bringing unmatched core counts and multi-threaded performance for enthusiasts, prosumers and professional users. Since its first generation, AMD has continued to expand the Threadripper lineup, increasing the performance, core, and thread counts reflected in real-world success, while introducing key support and security features for enterprise users, providing the tools necessary to handle the most demanding creative and production workloads quickly and efficiently.

Building on the success of AMD Ryzen Threadripper PRO 3000 WX processors, the Ryzen Threadripper PRO 5000 WX-Series processors combine the incredible performance of the “Zen 3” architecture with the enterprise security features, manageability, and scalability of AMD PRO technologies. With higher frequencies and an enhanced L3 cache architecture, the new Ryzen Threadripper PRO processors ensure users can tackle lightly threaded workloads, while also delivering leading multithreaded performance.[3]

Leadership Performance

Delivering up to double the performance of competing single socket solutions[4] and up to 95% higher performance than workstations using two competing server processors, AMD Ryzen Threadripper PRO 5000 WX-Series processors deliver dominant performance on multiple workloads across the entire product portfolio[5].

AMD Ryzen Threadripper PRO 5000 WX-Series processors support an industry-leading 128 PCIe 4.0 lanes, enabling more graphics and storage expandability than competing solutions. The processors enable up to 43% higher graphics performance and up to 2.2x the storage performance of competing solutions.[6]

Advancing Efficiency

Consuming up to 67% lower power per core, AMD Ryzen Threadripper PRO 5000 WX-Series processors deliver up to double the performance-to-power ratio of competing solutions.[7] The processor's highly efficient "Zen 3" cores advance sustainability, while delivering industry-leading performance.[2]

Designed to handle the most complex professional workloads, the Ryzen Threadripper PRO 5000 WX-Series processor lineup delivers the ability to render and edit in 8K, develop complex simulations and designs and rapidly develop and compile code to give professionals a competitive edge and do more in less time.

Product Specifications

Model	Cores/ Threads	Boost[8]/Base[9] Frequency (GHz)	Total Cache (MB)	TDP[10] (Watts)	PCIe® 4.0 lanes	Memory Support
AMD Ryzen™ Threadripper™ PRO 5995WX	64/128	Up to 4.5/2.7	288MB	280W	128	Up to 2TB ECC UDIMM, RDIMM, LRDIMM
AMD Ryzen™ Threadripper™ PRO 5975WX	32/64	Up to 4.5/3.6	144MB	280W	128	Up to 2TB ECC UDIMM, RDIMM, LRDIMM
AMD Ryzen™ Threadripper™ PRO 5965WX	24/48	Up to 4.5/3.8	140MB	280W	128	Up to 2TB ECC UDIMM, RDIMM, LRDIMM
AMD Ryzen Threadripper™ PRO 5955WX	16/32	Up to 4.5/4.0	72MB	280W	128	Up to 2TB ECC UDIMM, RDIMM, LRDIMM
AMD Ryzen™ Threadripper™ PRO 5945WX	12/24	Up to 4.5/4.1	70MB	280W	128	Up to 2TB ECC UDIMM, RDIMM, LRDIMM

Built for Professionals

Supporting the incredible performance of Ryzen Threadripper PRO 5000 WX-Series processors and helping create a solution for the most demanding professionally managed IT environments, are several AMD PRO technologies including:

- AMD Memory Guard – Encrypts memory to prevent physical attacks on sensitive data.
- AMD Secure Processor – Integrated, on-chip security processor designed to protect sensitive data and validate code before it is executed.
- AMD Shadow Stack – Innovative set of hardware protections built into the processor to help mitigate a common type of malware attack by preventing memory modification for instructions.

Availability

The new AMD Ryzen Threadripper PRO 5000 WX-Series processors are available in the Lenovo ThinkStation P620.

Supporting Resources

- Learn more about AMD Ryzen Threadripper PRO Processors
- Learn more about AMD PRO Technologies
    - Become a fan of AMD on Facebook
    - Follow AMD on Twitter

About AMD

For more than 50 years AMD has driven innovation in high-performance computing, graphics, and visualization technologies. 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. AMD employees are focused on building leadership high-performance and adaptive 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.

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[1] Leadership market share based on IDC 2021Q4 Workstation Tracker Expert (30L) Workstation defined as 30L-class workstation using AMD Ryzen™ Threadripper™ PRO, Intel® Xeon® W-3X00, or Intel Scalable processors

[2] Based on AMD performance lab testing on January 31, 2022, using the Revit RFO benchmark, the V-Ray benchmark and the Unreal Engine compile benchmark to compare performance of (5) AMD Ryzen™ Threadripper™ PRO 5000 WX-Series reference systems, each configured with 8x32GB DDR4, NVIDIA Quadro RTX A5000, 1TB SSD, Win 11 vs. (5) similarly configured BOXX APEXX4 workstations with Intel® Xeon® W-3300 series processors. Results may vary. CGP-21

[3] Based on AMD Labs testing as of January 31, 2022, using the Chaos V-Ray v5 (Update 1.1) benchmark tool to measure CPU rendering performance of an AMD Ryzen Threadripper Pro 5995WX reference system configured with 8x32GB DDR4, NVIDIA Quadro RTX A5000, 1TB SSD, Win 11 vs. a similarly configured BOXX APEXX4 workstation with an Intel® Xeon® W-3375. Results may vary. CGP-05

[4] Based on AMD performance lab testing on January 31, 2022, using the Corona Render Benchmark to compare performance of an AMD Ryzen Threadripper Pro 5995WX reference system configured with 8x32GB DDR4, NVIDIA Quadro RTX A5000, 1TB SSD, Win 11 vs. a similarly configured BOXX APEXX4 workstation with an Intel® Xeon® W-3375. Results may vary. CGP-16

[5] Based on AMD performance lab testing as of January 31, 2022, using Chaos V-Ray, PugetBench for Adobe After Effects, PugetBench for Davinci Resolve, SPECapc® for Maya 2017 CPU Composite metric, SPECapc® for Maya 2017 Graphics Interactive Composite, Cinebench 1T, Cinebench NT, Chromium Compilation, Unreal Engine Compilation, Cadalyst AutoCAD 3D Graphics, Cadalyst AutoCAD CPU, Ansys CFX Pump, Ansys CFX LeMans Car and Keysot benchmarks to compare the performance of an AMD Ryzen Threadripper 5995WX reference system configured with 8x32GB DDR4, NVIDIA Quadro RTX A5000, 1TB SSD, Win 11 vs. a similarly configured BOXX APEXX4 workstation with TWO Intel® Xeon® Platinum 8280 processors. Results may vary. CGP-04

[6] Based on AMD performance lab testing on January 31, 2022, using the SPECapc® for Maya 2017 Graphics Interactive Composite metric to compare graphics performance of (5) AMD Ryzen™ Threadripper™ PRO 5000 WX-Series reference systems configured with 8x32GB DDR4, NVIDIA Quadro RTX A5000, 1TB SSD, Win 11 vs. (5) similarly configured BOXX APEXX4 workstations with Intel® Xeon® W-3300 series processors. Results may vary.CGP-30

[7] Based on internal AMD analysis of benchmarks as of January 31, 2022, evaluating the V-Ray rendering performance and TDP of an AMD Ryzen Threadripper Pro 5995WX reference system (280W) configured with 8x32GB DDR4, NVIDIA Quadro RTX A5000, 1TB SSD, Win 11 vs. a similarly configured BOXX APEXX4 workstation with TWO an Intel® Xeon® W-8280 server processors (410W). Results may vary. CGP-24

[8] 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

[9] Base frequency is the approximate processor clock speed of a typical workload running at the processor's standard TDP. GD-166.

[10] 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

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