August 13, 2018

AMD Launches World's Most Powerful Desktop Processor: Bigger, Better 2nd Generation AMD Ryzen™ Threadripper™ Processors Break Boundaries of High-End Desktop Market

New WX Series with up to 32-cores and 64-threads for professional computing, improved X Series for enthusiasts and gamers, and AMD X399 platform compatibility

SANTA CLARA, Calif., Aug. 13, 2018 (GLOBE NEWSWIRE) -- AMD (NASDAQ: AMD) today announced the availability of world's most powerful desktop processor[1], the 2nd Gen AMD Ryzen Threadripper 2990WX processor with 32 cores and 64 threads. Designed to power the ultimate computing experiences, 2nd Gen AMD Ryzen Threadripper processors are built using 12nm "Zen+" x86 processor architecture and offer the most threads on any desktop processor with the flagship model delivering up to 53% greater performance than the competition's flagship model[1]. Second Gen AMD Ryzen Threadripper processors support the most I/O[2], and are compatible with existing AMD X399 chipset motherboards via a simple BIOS update, offering builders a broad choice for designing the ultimate high-end desktop or workstation PC.

"We created Ryzen Threadripper processors because we saw an opportunity to deliver unheard-of levels of multithreaded computing for the demanding needs of creators, gamers, and PC enthusiasts in the HEDT market," said Jim Anderson, senior vice president and general manager, Computing and Graphics Business Group, AMD. "With the 2nd Gen processor family we took that challenge to a whole new level – delivering the biggest, most powerful desktop processor the world has ever seen."

"AMD reinvigorated the PC market with the launch of Ryzen processors, bringing compelling new choices to buyers of performance PCs", said Alex Herrera, analyst and author of Jon Peddie Research's Workstation Report. "Now, with the 2nd Generation AMD Ryzen Threadripper, AMD is doing the same for professionals, delivering potent new CPU options to serve the hefty performance demands of the workstation market."

Bigger, More Powerful Performance

AMD WX Series of processors offer class-leading core counts[3], featuring the Ryzen™ Threadripper™ 2990WX with 32-core/64-threads and Ryzen™ Threadripper™ 2970WX with 24-core/48-threads. These are the embodiment of pure multi-core processing, purpose-built for prosumers who crave raw computational compute power to dispatch the heaviest workloads.

- 2nd Gen AMD Ryzen Threadripper 2990WX delivers up to 53% faster multi-thread performance than the Core i9-7980XE[1].
- 2nd Gen AMD Ryzen Threadripper 2990WX offers up to 47% more rendering performance for creators than the Core i9-7980XE[4].

AMD has enhanced the 2nd Gen AMD Ryzen™ Threadripper™ X Series with higher base and boost clocks offering enthusiasts, creators, gamers, and streamers who demand high performance with a beautiful smooth gaming experience; 16-core/32-thread 2nd Gen AMD Ryzen Threadripper 2950X delivers up to 41% more multi-threaded performance than the Core i9-7900X[5].

Better Experience with 2nd Gen Ryzen Feature Set

2nd Gen AMD Ryzen Threadripper processors implement improved AMD SenseMI[6] Technology with Precision Boost 2, and Extended Frequency Range 2 (XFR2) delivering the same generational performance uplifts seen on 2nd Gen Ryzen desktop processors. Additional performance and value are delivered for the enthusiast with:

- AMD StoreMI Technology: All X399 platform customers will now have free access to AMD StoreMI Technology enabling configured PCs to load files, games, and applications from a high-capacity hard drive at SSD-like read speeds[7].
- Ryzen Master Utility: Like all AMD Ryzen™ processors, 2nd Gen AMD Ryzen Threadripper CPUs are fully unlocked[8]. With the updated AMD Ryzen Master Utility, AMD has added new features like fast core detection both on die and per-CCX, advanced hardware controls, and simple, one-click workload optimizations.
- Precision Boost Overdrive (PBO)[9]: A new performance—enhancing feature that allows multi-threaded boost limits to be raised by tapping into extra power delivery headroom in premium motherboards.

Seamless Platform Compatibility

All 2nd Gen AMD Ryzen Threadripper CPUs are supported by a full ecosystem of exciting new motherboards and all existing X399 platforms with a simple BIOS update, with designs already available from top motherboard manufacturers including ASRock, ASUS, Gigabyte, and MSI.

2nd Generation AMD Ryzen Threadripper Desktop Processors Line-up

MODEL	CORES/ THREADS	BOOST/ BASE FREQUENCY (GHZ)	L3$ (MB)	TDP (WATTS)	PCIe® Gen 3.0 LANES	SEP (USD)	EXPECTED AVAILABILITY
AMD Ryzen™ Threadripper™ 2990WX	32/64	4.2/3.0	64	250W	64	$ 1,799	Aug. 13, 2018
AMD Ryzen™ Threadripper™ 2970WX	24/48	4.2/3.0	64	250W	64	$ 1,299	October 2018
AMD Ryzen™ Threadripper™ 2950X	16/32	4.4/3.5	32	180W	64	$ 899	Aug. 31, 2018
AMD Ryzen™ Threadripper™ 2920X	12/24	4.3/3.5	32	180W	64	$ 649	October 2018

Availability

The 32-core, 64-thread AMD Ryzen Threadripper 2990WX is available today, Aug. 13, 2018, from global retailers and system integrators. The 16-core, 32-thread AMD Ryzen Threadripper 2950X processor is expected to launch on Aug.31, 2018 and the AMD Ryzen

Threadripper 2970WX and 2920X models are slated for launch in October 2018. A complete list of participating retailers and launch information can be found at www.AMD.com.

Supporting Resources

- Learn more about 2nd Generation AMD Ryzen Threadripper processors
- Learn more about AMD Wraith cooling solutions
- Become a fan of AMD on Facebook
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About AMD
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Cautionary Statement

[1] Testing by AMD Performance labs as of 6/26/2018 on the following system. PC manufacturers may vary configurations yielding different results. Results may vary based on driver versions used. Test configuration: AMD 'Whitehaven' X399 Socket sTR4 Motherboard + AMD Ryzen™ Threadripper 2990WX + Gigabyte X299 AORUS Gasming9 + Core i9-7980XE. Both systems feature GeForce GTX 1080 (driver 24.21.13.9793), 4x8GB DDR4-3200, Windows 10 x64 Pro (RS3), Samsung 850 Pro SSD. "Power" defined as computational processing power as represented by the cinebench R15 processor benchmark The Core i9-7980XE achieved an average of 3335.2 points in the benchmark, while the Ryzen Threadripper 2990WX achieved an average of 5099.3, or (5099.3/3335.2=153%) 53% faster than the Intel Core i9-7980XE. RP2-1

[2] AMD Ryzen Threadripper processors all have 64 PCIe lanes and 4-channel memory. The highest-end competing processor, the Core i9-7980XE, has 44 PCIe lanes and 4-channel memory. Specifications from ark.intel.com and AMD.com. RZN-76

[3] Prior to the Ryzen Threadripper 2990WX, the desktop processor with the most cores was the Intel Core i9-7980XE, with 18 cores. With the release of the 32-core Ryzen Threadripper 2990WX, the most cores you can get on a desktop processor is now 32 cores. RP2-2

[4] Performance testing conducted by AMD Performance Labs as of 7/16/2018. POV-Ray 3.7 Results: 7980XE vs. 2990WX: 6532 v. 9657 (47% faster); Corona Render 1.3: 7980XE vs. 2990WX: 55 sec. v. 41 sec (35% faster); V-Ray Render 1.0.8: 7980XE vs. 2990WX: 37 sec. v. 27 (37% faster); 7-Zip 18.0.1: 7980XE vs. 2990WX: 87814 v. 99620 (13% faster); Blender 2.79: 7980XE vs. 2990WX: 38 sec. v. 27 sec. (39% faster); AMD System configuration: AMD Ryzen™ Threadripper™ 2990WX and 1950X, Corsair H100i CLC, 4x16GB DDR4-2667 (16-

18-18), Asus Zenith X399 Extreme (BIOS 0008), GeForce GTX 1080 Ti (driver 398.36), Windows® 10 x64 1803, Samsung 850 Pro SSD, Western Digital Black 2TB HDD. Intel System Configuration: Core i9-7980XE, Asus PRIME X299-Deluxe (BIOS 1401), 4x16GB DDR4-2667 (16-18-18), GeForce GTX 1080 Ti (driver 398.36), Windows® 10 x64 1803, Samsung 850 Pro SSD, Western Digital Black 2TB HDD. Results may vary with system configuration and drivers. RP2-10

[5] Performance testing conducted by AMD Performance Labs as of 7/16/2018. “Multithread” performance defined as Cinebench R15 nT. “Single thread” performance defined as Cinebench R15 1T. Cinebench R15 nT Results: 7900X vs. 2950X: 2183 vs. 3092 (+41% faster); 7900X vs. 1950X: 2183 vs. 3022 (38% faster); 1950X vs. 2950X: 3022 vs. 3092 (1.6% faster). Cinebench R15 1T results: 7900X vs. 2950X: 188 vs. 177 (5.8% slower); 7900X vs. 1950X: 188 vs. 167 (11% slower); 1950X vs. 2950X: 167 vs. 177 (6% faster). AMD System configuration: AMD Ryzen™ Threadripper™ 2950X and 1950X, Corsair H100i CLC, 4x8GB DDR4-3200 (14-14-14-28-1T), Asus Zenith X399 Extreme (BIOS 0008), GeForce GTX 1080 Ti (driver 398.36), Windows® 10 x64 1803, Samsung 850 Pro SSD, Western Digital Black 2TB HDD. Intel System Configuration: Core i9-7900X, Asus PRIME X299-Deluxe (BIOS 1401), 4x8GB DDR4-3200 (14-14-14-28-1T), GeForce GTX 1080 Ti (driver 398.36), Windows® 10 x64 1803, Samsung 850 Pro SSD, Western Digital Black 2TB HDD. Results may vary with system configuration and drivers. RP2-6

[6] AMD SenseMI technology is built into all Ryzen processors, but specific features and their enablement may vary by product and platform. Learn more at http://www.amd.com/en/technologies/sense-mi.

[7] As measured by AMD Performance Labs with the Iometer throughput storage test on 3/22/2018. 1MB Read performance of a 7200 RPM Western Digital Black HDD: 139 MBps. 1MB Read performance of a Samsung 850 Pro: 553 MBps. 1MB Read performance of an AMD StoreMI configuration that fuses the aforementioned HDD and SSD into a single virtual storage device: 553 MBps. System configuration: AMD Reference Motherboard + AMD Ryzen™ 7 2700X, 2x8GB DDR4-3200 (16-16-16-36), 128GB Samsung 850 Pro SSD, 1TB Western Digital Black HDD, GeForce GTX 1080 (driver 390.77), Windows® 10 Pro RS3, AMD StoreMI Technology beta. Results may vary by system configuration and driver version. RZ2-13

[8] AMD’s product warranty does not cover damages caused by overclocking, even when overclocking is enabled via AMD hardware and/or software. GD-26

[9] Precision Boost Overdrive requires a 2nd Gen Ryzen 2000X series processor with AMD 400-series chipset motherboard. Because Precision Boost Overdrive enables operation of the processor outside of specifications and in excess of factory settings, use of the feature invalidates the AMD product warranty and may also void warranties offered by the system manufacturer or retailer. GD-128

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Source: Advanced Micro Devices