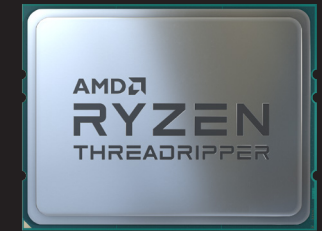QUICK REFERENCE GUIDE
3RD GEN AMD RYZEN™ THREADRIPPER™ PROCESSORS
RENDER TIME IRRELEVANT.

THE WORLD'S MOST POWERFUL DESKTOP PROCESSORS[1]

The 3rd Gen Ryzen™ Threadripper™ is the fastest desktop processor ever created. Period. The most cores[7]. The highest bandwidth[8]. The most memory.[6] If all you want to do is game, get a Ryzen™ processor. If you want to game, stream, render, encode, and deliver, get a Ryzen™ Threadripper™ processor.

THE WORLD'S MOST POWERFUL DESKTOP PLATFORM

A racing engine is nothing without a car to propel. That's why the world's most powerful 3rd Gen AMD Ryzen™ Threadripper™ processors are coupled with the new TRX40 desktop platform. Industry leading technology delivers bleeding-edge efficiency and expandability, with next-gen PCIe® 4.0 connectivity that the competition can't support. It's the ultimate machine, from core to keyboard.

CREATE WITHOUT COMPROMISE

Creating inspiring worlds or innovative products is your life's work. You have a complex workflow and your customers demand increasingly refined results. You need a machine that can help you get more done in less time while staying ahead of the competition. A machine that can truly multi-task with blazing fast rendering for rapid visual feedback, along with plenty of extra cores to simultaneously edit footage, animate a character or fine tune a design. 3rd Gen AMD Ryzen™ Threadripper™ lets you create without compromise.

MORE THAN JUST CREATION

Gaming is life but there's so much more to gaming than just playing. You need a machine powerful enough to stream your game content to your audience, without skipping frames. A machine that's strong enough to handle your imagination while you create worlds in three dimensions. A machine that's fast enough to compile your code while you play on it. 3rd Gen AMD Ryzen™ Threadripper™ let's you game and create to the fullest.

PRODUCT	SOCKET	# OF CORES/THREADS	MAX BOOST FREQUENCY[2]	POWER	TOTAL CACHE (L2+L3)	PRECISION BOOST OVERDRIVE	MEMORY TYPE	PCIE 4.0 LANES (TOTAL/USABLE)	UNLOCKED[4]	AVX, AVX2, FMA3, AES SUPPORT	VIRTUALIZATION SUPPORT (AMD-V, AMD-VI AND SLAT/EPT)	COMPARES TO
3rd Gen AMD Ryzen™ Threadripper™ 3990X	sTRX4	64C/128T	Up to 4.3 Ghz	280W	288 MB	•	Quad Channel DDR4	88/72	•	•	•	Intel® Xeon® W-3275
3rd Gen AMD Ryzen™ Threadripper™ 3970X	sTRX4	32C/64T	Up to 4.5 Ghz	280W	144 MB	•	Quad Channel DDR4	88/72	•	•	•	Intel® Core™ i9-10980XE
3rd Gen AMD Ryzen™ Threadripper™ 3960X	sTRX4	24C/48T	Up to 4.5 Ghz	280W	140 MB	•	Quad Channel DDR4	88/72	•	•	•	Intel® Core™ i9-10920X

CHIPLET DESIGN

The 3rd Gen AMD Ryzen Threadripper processor is designed with a radical manufacturing technique called "chiplets." One processor package containing up to nine small and specialized dies for up to 64 high-performance cores in AMD Socket sTRX4, and unmatched features like PCIe® 4.0 readiness. That's creating at its best.

*This chart illustrates competitive product placement and is not necessarily an indication of relative performance.

AMD

3rd Gen AMD Ryzen Threadripper Technologies
PERFORMANCE THAT THINKS

7nm "Zen 2" Core
Everyone wants PC that's cooler, quieter, and faster while gaming and creating. Thanks to technological innovation only AMD can do—the 7nm "Zen 2" core[3]—the 3rd Gen AMD Ryzen Threadripper processor is ready for that. And so much more.

Precision Boost Overdrive (PBO)
Precision Boost Overdrive makes automatic overclocking a reality with increased clockspeed and power limits at the touch of a button[4,5]

Precision Boost 2
Precision Boost 2 can automatically raise processor frequencies for supercharged performance.

For more information visit **www.AMD.com/THREADRIPPER**

AMD Socket sTRX4 TRX40
THE ULTIMATE PLATFORM FOR HIGH-END PC ENTHUSIASTS

The new **TRX40 platform** represents the pinnacle of desktop computing. Built for serious visual effects artists, data scientists, or anyone who takes their time seriously, the scalable AMD TRX40 chipset offers unprecedented expansion for serious multi-GPU and NVMe arrays thanks to bleeding-edge PCIe® 4.0 connectivity, exclusive to this platform in high-end desktop.

Learn more at https://www.AMD.com/en/chipsets/str40

AMD RYZEN Master
YOUR TOOL TO UNLOCK AMD RYZEN THREADRIPPER PROCESSORS

Ryzen Master Utility is a free utility for AMD Ryzen Threadripper Processors that provides fine-tuning controls. Every AMD Ryzen Threadripper Processor is multiplier-unlocked from the factory, so you can personalize performance to your taste, monitor your system, and more.[4]

Learn more at https:// www.AMD.com/ryzen-master-utility

FOOTNOTES:

1. Testing by AMD performance labs on 10/07/2019 comparing an AMD Ryzen™ Threadripper™ 3970X and AMD Ryzen™ Threadripper™ 3960X vs. Intel© Core™ i9-9980XE in the Cinebench R20 nT benchmark test. Results may vary. CPK-02
2. 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
3. The information contained herein is for informational purposes only, and is subject to change without notice. "Zen", "Zen+" and "Zen 2" are code names for AMD architectures, and are not product names. GD-122
4. Overclocking AMD processors, including without limitation, altering clock frequencies / multipliers or memory timing / voltage to operate beyond their stock specifications will void any applicable AMD product warranty, even when such overclocking is enabled via AMD hardware and/or software. This may also void warranties offered by the system manufacturer or retailer. Users assume all risks and liabilities that may arise out of overclocking AMD processors, including, without limitation, failure of or damage to hardware, reduced system performance and/or data loss, corruption or vulnerability. GD-106
5. Precision Boost Overdrive requires an AMD Ryzen Threadripper, AMD Ryzen 5 3000, AMD Ryzen 7 3000, or AMD Ryzen 9 3000 Series processor and a motherboard compatible with one or more of these processors. 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-135
6. 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
7. Based on AMD internal analysis, December 2019. CPK-24
8. Specifications of 3rd generation Ryzen Threadripper processors as of October 29th, 2019. As of October 8, 2019, the AMD 3rd Gen Ryzen Threadripper processors can deliver 133GB/s of concurrent device bandwidth. Intel's competing high-end desktop processor, the Core i9-10980XE, can deliver up to 52GB/s of concurrent device bandwidth. CPK-14.

AMD