QUICK REFERENCE GUIDE

3RD GEN AMD RYZEN™ PROCESSORS

BUILT TO PERFORM. DESIGNED TO WIN.

ULTIMATE PERFORMANCE

Get higher clock speeds and faster DDR4 memory with 3rd Gen AMD Ryzen processors powered by the new "Zen 2" core. With twice the high-performance cache of previous generations, 3rd Gen Ryzen processors are designed to reduce memory latencies for higher framerates in top games.

UNRIVALED TECHNOLOGY

The 3rd Gen AMD Ryzen processor is built using the world's most advanced 7nm manufacturing technology to deliver extraordinary performance while keeping your system astonishingly cool and quiet. The user benefit is clear: improved energy efficiency[1], higher clock speeds and more cores than ever before.

EXTRAORDINARY LEADERSHIP

3rd Gen AMD Ryzen processors are the first gaming processors to be PCIe® 4.0 Ready, enabling the most advanced motherboards, graphics, and storage technologies available.

3RD GEN AMD RYZEN PROCESSORS	CORES/ THREADS	TYPICAL TDP	UP TO MAX/BASE FREQUENCY[2, 3]	GAMECACHE	PCIE® 4.0 LANES (USABLE / TOTAL)	UNLOCKED FOR OVERCLOCKING[4]	IN BOX COOLER	COMPETITOR PRODUCT
AMD Ryzen™ 9 3950X	16/32	105W	4.7/3.5	72MB	36/44	Yes + Precision Boost Overdrive[5]	-	Core i9-9920X
AMD Ryzen™ 9 3900X	12/24	105W	4.6/3.8	70MB	36/44	Yes + Precision Boost Overdrive[5]	Wraith Prism	Core i9-9900K
AMD Ryzen™ 7 3800X	8/16	105W	4.5/3.9	36MB	36/44	Yes + Precision Boost Overdrive[5]	Wraith Prism	Core i7-9700K
AMD Ryzen™ 7 3700X	8/16	65W	4.4/3.6	36MB	36/44	Yes + Precision Boost Overdrive[5]	Wraith Prism	Core i7-9700K
AMD Ryzen™ 5 3600X	6/12	95W	4.4/3.8	35MB	36/44	Yes + Precision Boost Overdrive[5]	Wraith Spire	Core i5-9600K
AMD Ryzen™ 5 3600	6/12	65W	4.2/3.6	35MB	36/44	Yes + Precision Boost Overdrive[5]	Wraith Stealth	Core i5-9600
AMD Ryzen™ 3 3300X	4/8	65W	4.3/3.8	18MB	36/44	Yes + Precision Boost Overdrive[5]	Wraith Stealth	Core i5-9400
AMD Ryzen™ 3 3100	4/8	65W	3.9/3.6	18MB	36/44	Yes + Precision Boost Overdrive[5]	Wraith Stealth	Core i3-9100

AMD

AMD RYZEN TECHNOLOGY

- With **GameCache**, 3rd Gen AMD Ryzen Processors deliver a dramatic reduction in effective memory latency in PC games.
- **Precision Boost 2** automatically raises processor frequencies for supercharged performance.
- **Precision Boost Overdrive**[5] makes automatic overclocking a reality with increased clock speed and power limits at the click of a button.
- **Pure Power** brings cool and quiet performance with a combination of intelligent power optimization and the unrivaled 7nm "Zen 2" architecture.

● = BEST ◐ = BETTER ○ = GOOD

	PRODUCTIVITY & ENTERTAINMENT	MAX GAME PERFORMANCE	CONTENT CREATION	GAME STREAMING
AMD Ryzen™ 9 3950X	●	●	●	●
AMD Ryzen™ 9 3900X	●	●	●	●
AMD Ryzen™ 7 3800X	●	●	◐	◐
AMD Ryzen™ 7 3700X	●	●	◐	◐
AMD Ryzen™ 5 3600X	●	●	○	○
AMD Ryzen™ 5 3600	●	◐	○	○
AMD Ryzen™ 3 3300X	●	◐	○	
AMD Ryzen™ 3 3100	●	○	○	

*This chart illustrates relative product positioning on key functionality and is not necessarily an indication of relative performance. Performance may vary by application.

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

1. a. Testing by AMD Performance Labs as of 06/03/2019 utilizing an AMD Ryzen™ 7 3700X and Ryzen™ 7 2700X measuring system wall power while running Cinebench R20 nT. RZ3-42
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. Base frequency is the approximate processor clock speed of a typical workload running at the processor's standard TDP. GD-166
4. AMD's product warranty does not cover damages caused by overclocking, even when overclocking is enabled via AMD hardware and/or software . GD-26
5. Precision Boost Overdrive requires a 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

The information contained herein is for informational purposes only and is subject to change without notice. "Zen 2" is a codename for AMD architecture, and is not a product name. GD-122

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