QUICK REFERENCE GUIDE
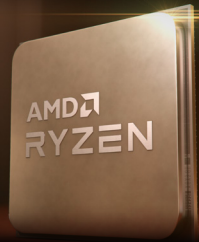# AMD RYZEN™ 5000 SERIES DESKTOP PROCESSORS

INCREDIBLE GAMING

AMD Ryzen™ 5000 Series desktop processors power the next generation of demanding games and tear through any multithreaded task like 3D and video rendering, and software compiling. With up to 16 cores, 32 threads, boost clocks of up to 4.9GHz[3] and up to 72MB of cache in select models, these processors deliver incredible performance. In addition, with AMD Ryzen™ 5000 G-Series desktop processors, you get incredible visuals built-in with AMD Radeon™ Graphics on-chip.

THE LATEST TECHNOLOGIES

AMD Ryzen™ 5000 Series processors come with the full suite of Ryzen™ processor technologies designed to elevate your PC's processing power including Precision Boost 2 and Precision Boost Overdrive[4]. Built on the exceptional 7nm "Zen 3" architecture, Ryzen™ 5000 Series processors continue to deliver impressive performance-per-watt[5]. And, get maximum graphics and storage bandwidth with available PCIe® 4.0 capabilities on select processors.

BUILD WITH CONFIDENCE

For DIY PC enthusiasts, you can easily configure and customize your rig for the ultimate gaming build. AMD Ryzen™ 5000 Series desktop processors are drop-in ready with a BIOS update on AMD 500 and 400 Series motherboards. You can easily tweak and tune your processor with Ryzen™ Master and jump in the game faster with AMD StoreMI technology.

	CORES/ THREADS	TYPICAL TDP	UP TO MAX/BASE FREQUENCY[1,3]	TOTAL CACHE	PCIE® READY	GRAPHICS	PCIE® LANES WITH X570 CHIPSET (USABLE / TOTAL)	UNLOCKED FOR OVERCLOCKING[4]
AMD Ryzen™ 9 5950X	16 / 32	105W	4.9 / 3.4	72MB	Gen 4	Discrete GPU required	36 / 44	Yes
AMD Ryzen™ 9 5900X	12 / 24	105W	4.8 / 3.7	70MB	Gen 4	Discrete GPU required	36 / 44	Yes
AMD Ryzen™ 9 5900 (OEM Only)	12 / 24	65W	4.7 / 3.0	70MB	Gen 4	Discrete GPU required	36 / 44	Yes*
AMD Ryzen™ 7 5800X	8 / 16	105W	4.7 / 3.8	36MB	Gen 4	Discrete GPU required	36 / 44	Yes
AMD Ryzen™ 7 5800 (OEM Only)	8 / 16	65W	4.6 / 3.4	36MB	Gen 4	Discrete GPU required	36 / 44	Yes*
AMD Ryzen™ 7 5700G	8 / 16	65W	4.6 / 3.8	20MB	Gen 3	On-chip Radeon™ Graphics	36 / 44	Yes
AMD Ryzen™ 5 5600X	6 / 12	65W	4.6 / 3.7	35MB	Gen 4	Discrete GPU required	36 / 44	Yes
AMD Ryzen™ 5 5600G	6 / 12	65W	4.4 / 3.9	19MB	Gen 3	On-chip Radeon™ Graphics	36 / 44	Yes
AMD Ryzen™ 3 5300G (OEM Only)	4 / 8	65W	4.2 / 4.0	10MB	Gen 3	On-chip Radeon™ Graphics	36 / 44	Yes*

This chart illustrates relative product positioning on key functionality and is not necessarily an indication of relative performance. Performance may vary by application.
*Availability of overclocking, Ryzen™ Master, Precision Boost Overdrive, and other Ryzen™ technologies in pre-built OEM desktop systems will vary based on PC manufacturer settings. Check with your PC manufacturer for more information.

AMD RYZEN™ TECHNOLOGY*

- **Precision Boost 2** automatically raises processor frequencies for supercharged performance. Whether your application uses one core or many, Precision Boost 2 is always watching temperature and power consumption to intelligently deliver the best possible result for your PC.
- **AMD StoreMI** technology is the fast and easy way to expand and accelerate the storage in a desktop by combining the speed of an SSD with the capacity of an HDD.

- **Precision Boost Overdrive**[2] makes automatic overclocking a reality with increased clock speed and power limits at the click of a button. Precision Boost Overdrive is also easy to use thanks to one-touch activation in the BIOS or via AMD Ryzen™ Master.
- Use **AMD Ryzen™ Master** with your unlocked AMD Ryzen™ desktop processor to easily personalize performance.

*Availability of overclocking, Ryzen™ Master, Precision Boost Overdrive, and other Ryzen™ technologies in pre-built OEM desktop systems will vary based on PC manufacturer settings. Check with your PC manufacturer for more information.

● = BEST   ◐ = BETTER   ○ = GOOD

	PRODUCTIVITY & ENTERTAINMENT	MAX GAME PERFORMANCE	GAMING & STREAMING	CONTENT CREATION
AMD Ryzen™ 9 5950X	●	●	●	●
AMD Ryzen™ 9 5900X	●	●	●	◐
AMD Ryzen™ 9 5900 (OEM)	●	●	●	◐
AMD Ryzen™ 7 5800X	●	●	◐	◐
AMD Ryzen™ 7 5800 (OEM)	●	●	◐	◐
AMD Ryzen™ 7 5700G	●	●	◐	◐
AMD Ryzen™ 5 5600X	●	●	◐	○
AMD Ryzen™ 5 5600G	●	●	○	○
AMD Ryzen™ 3 5300G (OEM)	●	◐	N/A	○

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**

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