

QUICK REFERENCE GUIDE | AMD RYZEN™ 5000 SERIES DESKTOP PROCESSORS

POWER. PERFORMANCE. EFFICIENCY. All are at your fingertips due to the technological innovation of the 7nm “Zen 3” core found inside AMD Ryzen™ 5000 Series processors.



POWERFUL DESKTOP PROCESSORS

AMD Ryzen™ 5000 Series desktop processors power the next generation of demanding games and dominate any multithreaded task. In addition, with AMD Ryzen™ 5000 G-Series desktop processors, you get incredible integrated graphics in a desktop processor.

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.

BUILD WITH CONFIDENCE

AMD Ryzen™ 5000 Series desktop processors are drop-in ready with a BIOS update on AMD 500, 400, and 300 Series motherboards.

PRODUCT SPECIFICATIONS

	CORES/ THREADS	TYPICAL TDP	UP TO MAX/BASE FREQUENCY ³	TOTAL CACHE	PCI-E® READY	GRAPHICS	PCI-E® LANES WITH X570 CHIPSET (USABLE / TOTAL)	UNLOCKED FOR OVERCLOCKING ^{1,2?}
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
NEW! AMD RYZEN™ 7 5800X3D with AMD 3D V-Cache™ Technology	8/16	105W	4.5 / 3.4	100MB	Gen 4	Discrete GPU required	36 / 44	Yes - Memory and Infinity Fabric™ Overclocking
AMD RYZEN™ 7 5800X	8 / 16	105W	4.7 / 3.8	36MB	Gen 4	Discrete GPU required	36 / 44	Yes
AMD RYZEN™ 7 5700X	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™ 5 5600	6 / 12	65W	4.4 / 3.5	35MB	Gen 4	Discrete GPU required	36 / 44	Yes
AMD RYZEN™ 5 5500	6 / 12	65W	4.2 / 3.6	19MB	Gen 3	Discrete GPU required	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.

¹Availability 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.

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AMD RYZEN TECHNOLOGY*

- **Precision Boost 2⁴** automatically raises processor frequencies for supercharged performance, 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.
- **Memory Overclocking^{1,2}** - Get the most performance out of your AMD Ryzen™ PC with easy and seamless overclocking of your system memory

- Use **AMD Ryzen™ Master** with your AMD Ryzen™ desktop processor to easily personalize performance.
- Ready for AMD Ryzen™ 7 5800X3D desktop processors with a simple BIOS update, the **AMD 500, 400, and now select 300 Series motherboards** offers enthusiast features and an upgradeable CPU socket.
- The AMD Ryzen™ 7 5800X3D desktop processor is the first gaming processor with **AMD 3D V-Cache™ chip stacking technology** designed to unleash more gaming 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.

★ LEADING ● BEST ◐ BETTER ○ GOOD

	MAX GAME PERFORMANCE 	PRODUCTIVITY & ENTERTAINMENT 	GAMING & STREAMING 	CONTENT CREATION 
AMD Ryzen™ 9 5950X	●	●	●	●
AMD Ryzen™ 9 5900X	●	●	●	◐
NEW! AMD Ryzen™ 7 5800X3D	★	●	◐	◐
AMD Ryzen™ 7 5800X	●	●	◐	◐
AMD Ryzen™ 7 5700X	●	●	◐	◐
AMD Ryzen™ 7 5700G	●	●	◐	◐
AMD Ryzen™ 5 5600X	●	●	◐	○
AMD Ryzen™ 5 5600G	●	●	○	○
AMD Ryzen™ 5 5600	●	●	◐	○

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For more information visit www.AMD.com/RYZEN

1. GD-26 AMD's product warranty does not cover damages caused by overclocking or undervolting outside of AMD's published specifications, even when these are enabled via AMD hardware and/or software.
 2. GD-106 Overclocking and/or Undervolting AMD processors and memory, including without limitation, altering clock frequencies / multipliers or memory timing / voltage, to operate outside of AMD's published specifications will void any applicable AMD product warranty, even when 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 and/or undervolting AMD processors, including, without limitation, failure of or damage to hardware, reduced system performance and/or data loss, corruption or vulnerability.
 3. GD-150 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.
 4. GD-188 For additional information about Precision Boost 2, see <https://www.amd.com/en/support/kb/faq/cpu-pb2>