AMD RYZEN™ 9000 SERIES DESKTOP PROCESSORS

QUICK REFERENCE GUIDE

Born to lead. Destined to Win. Built using the latest breakthrough 4nm processor technology, AMD Ryzen[™] 9000 Series processors are the ultimate advanced processor for fast performance, designed to deliver incredible efficiency life while remaining cool and quiet.

INCREDIBLE POWER

- High-performance "Zen 5" core technology¹
- A powerhouse processor for gaming and content creation
- 4nm manufacturing process

PRODUCT SPECIFICATIONS

LEADERSHIP TECHNOLOGIES

- AMD 3D V-Cache[™] technology for the best gaming experiences
- AMD EXPO[™] technology for one-touch memory overclocking^{2,3}
- Designed to deliver incredible AI acceleration with AMD Radeon[™] graphics capabilities

DEPENDABLE LONGEVITY

- Future upgrade support available
- Fast DDR5 memory speeds
- Incredible bandwidtch with PCIe[®] 5.0

PROCESSOR MODEL	CORES/ THREADS	TYPICAL TDP	МАХ/BASE FREQUENCY ⁴ (UP то)	TOTAL CACHE L2 + L3	PCIE [®] GEN	UNLOCKED FOR OVERCLOCKING ²	COOLER INCLUDED	BUILT-IN GRAPHICS	COMPETITIVE PROCESSOR
AMD RYZEN™ 9950X3D	16/32	170 W	5.7 / 4.3 GHz	144 MB	5.0	Yes	No	AMD Radeon [™] Graphics	Intel Core i9-14900K / 13900KS
AMD RYZEN™ 9 9950X	16/32	170W	5.7 / 4.3 GHz	80 MB	5.0	Yes	No	AMD Radeon [™] Graphics	Intel Core i9-14900K / 13900KS
AMD RYZEN™ 9 9900X3D	12/24	120W	5.5 / 4.4 GHz	140 MB	5.0	Yes	No	AMD Radeon [™] Graphics	Intel Core i9 14900K / 13900K
AMD RYZEN™ 9 9900X	12/24	120W	5.6 / 4.4 GHz	76 MB	5.0	Yes	No	AMD Radeon [™] Graphics	Intel Core i9-14900K / 13900K
AMD RYZEN™ 7 9800X3D	8/16	120W	5.2 / 4.7 GHz	104MB	5.0	Yes	No	AMD Radeon [™] Graphics	Intel Core i9-14900K / Core Ultra 9 285K
AMD RYZEN™ 7 9700X	8/16	65W	5.5 / 3.8 GHz	40 MB	5.0	Yes	No	AMD Radeon [™] Graphics	Intel Core i9-14700K / 13700K
AMD RYZEN™ 5 9600X	6/12	65W	5.4 / 3.9 GHz	38 MB	5.0	Yes	No	AMD Radeon [™] Graphics	Intel Core i9-14600K / 13600K
AMD RYZEN™ 5 9600	6/12	65W	5.2 / 3.8 GHz	38 MB	5.0	Yes	AMD Wraith Stealth	AMD Radeon [™] Graphics	Intel Core i9-14600 / 13600

THIS CHART ILLUSTRATES RELATIVE PRODUCT POSITIONING ON KEY FUNCTIONALITY AND IS NOT NECESSARILY AN INDICATION OF RELATIVE PERFORMANCE. PERFORMANCE MAY VARY BY APPLICATION.

FEATURES

AMD EXPO[™] TECHNOLOGY

• Improved memory performance designed for getting in the game faster² can unlock higher and smoother frame rates

AMD 800 SERIES MOTHERBOARD-READY

- AMD X870E, X870, B850, B840 chipsets
- Support for PCIe[®] Gen 5
- Memory overclocking support
- USB 4.0

ENTHUSIST-CLASS AI READY

- Built-in AI acceleration
- Ideal for enthusiast-class consumer AI applications
- · Great platform for enabling AI-accelerated graphics



GAMING WITH AMD 3D V-CACHE™ TECHNOLOGY

- Extra memory sitting below processor cores for direct access to the cooler
- When a chip runs cooler, it can run faster
- Up to 144MB of on-chip memory
- Perfect for users who want faster gaming performance

- Includes the following AMD Ryzen[™] 9000 series desktop processor models:
 - AMD Ryzen[™] 9 9950X3D
 - AMD Ryzen[™] 9 9900X3D
 - AMD Ryzen[™] 7 9800X3D

RECOMMENDED USAGE CHART

			B	EST U BETTER U GOOD	
PROCESSOR FAMILY	PRODUCTIVITY & ENTERTAINMENT				
AMD RYZEN™ 9 PROCESSORS					
THE PERFECT PROCESSOR FOR ELITE GAMERS AND CREATORS.					
AMD RYZEN™ 7 PROCESSORS					
THRILLING SPEED FOR Powerful PCS.		-			
AMD RYZEN™ 5 PROCESSORS					
THE PERFECT SPEED FOR WORK AND PLAY.			0	O	
AMD RYZEN [™] 3 PROCESSORS		•			
PERFORMANCE ON-THE-GO Starts Here.		0			

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NEXT STEPS

Find out more by visiting www.amd.com/RYZEN

For more AMD product training, sign up at **arena.amd.com** and earn rewards!

ENDNOTES

1. The information contained herein is for informational purposes only, and is subject to change without notice. Timelines, roadmaps, and/or product release dates shown in these slides are plans only and subject to change. "Zen 5" is a codename for AMD architecture, and is not a product name. GD-122

2. 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. GD-106

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

4. Boost Clock Frequency is the maximum frequency achievable on the CPU running a bursty workload. Boost clock achievability, frequency, and sustainability will vary based on several factors, including but not limited to: thermal conditions and variation in applications and workloads. GD-150

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