

# AMD RYZEN™ 9950X3D AND 9900X3D DESKTOP PROCESSORS

2025



## THE ULTIMATE GAMING EDGE

Featuring 2nd Gen AMD 3D V-Cache™ technology, the AMD Ryzen™ 9 9950X3D, with 16 cores, and the AMD Ryzen™ 9 9900X3D, with 12 cores, give gamers the competitive edge. Fully overclockable<sup>1</sup> for even more performance, these new processors include technologies and features perfect for the most demanding gamers and creators.

## AMD RYZEN™ 9 9950X3D AND 9900X3D PROCESSORS ARE FOR **GAMERS WHO WANT:**



**INCREDIBLE  
POWER**



**LEADERSHIP  
TECHNOLOGIES**



**DEPENDABLE  
LONGEVITY**

## HIGHLIGHTS

### AMD 3D V-CACHE™ TECHNOLOGY

- Extra memory below processor core for direct access to cooler; cooler chips run faster
- Perfect for users who want faster gaming performance

### AMD EXPO™ TECHNOLOGY

- User-friendly memory overclocking<sup>1</sup> support
- Improved memory performance (DDR5)
- Can unlock higher and smoother frame rates

### FULLY OVERCLOCKABLE<sup>1</sup>

- First line of AMD 3D V-Cache™ processors that are fully overclockable
- Easily personalize performance with the AMD Ryzen™ Master utility

### AMD “ZEN 5” ARCHITECTURE<sup>2</sup>

- 4nm manufacturing process
- High-performance “Zen 5” core technology
- A powerhouse for gaming and content creation

### ENTHUSIAST-CLASS AI READY

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

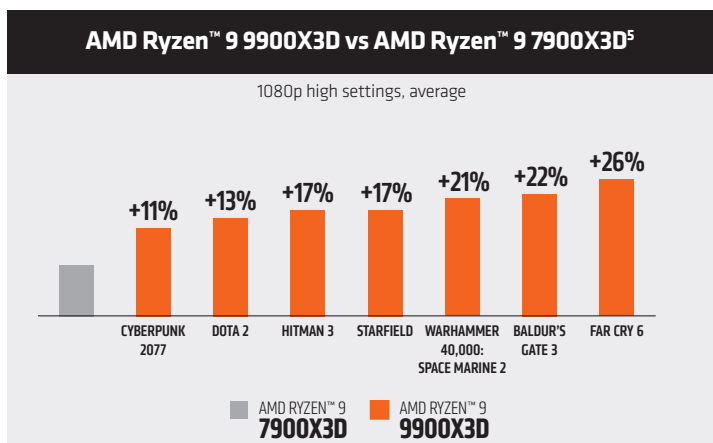
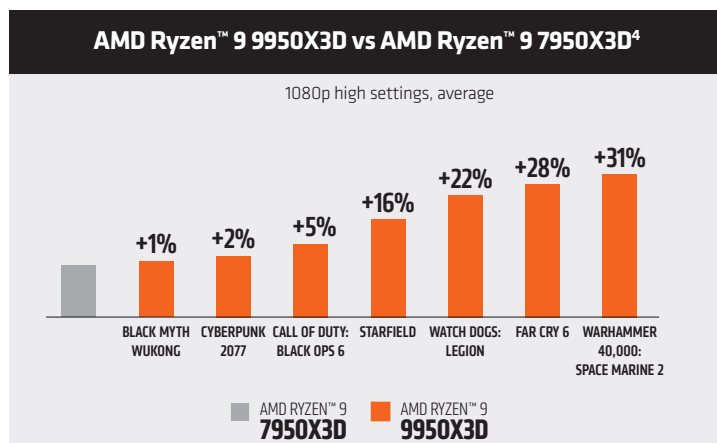
### AMD 800 SERIES MOTHERBOARD-READY

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

## AMD RYZEN™ 9 9950X3D AND 9900X3D PROCESSOR SPECIFICATIONS

	CORES/ THREADS	TYPICAL TDP	MAX/BASE FREQUENCY <sup>3</sup> (UP TO)	TOTAL CACHE L2 + L3	PCIe® GEN	UNLOCKED FOR OVERCLOCKING? <sup>4</sup>
AMD RYZEN™ 9 9950X3D	16/32	170W	5.7 / 4.5 GHz	144 MB	5.0	Yes
AMD RYZEN™ 9 9900X3D	12/24	120W	5.5 / 4.4 GHz	140 MB	5.0	Yes

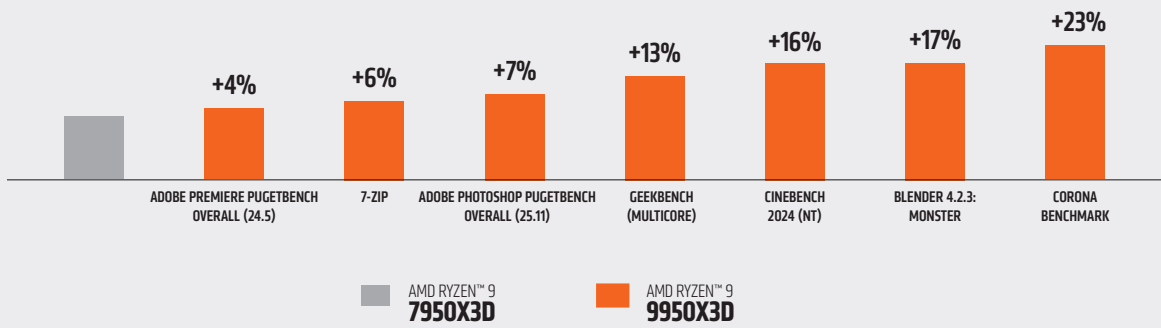
## GENERATIONAL UPLIFT



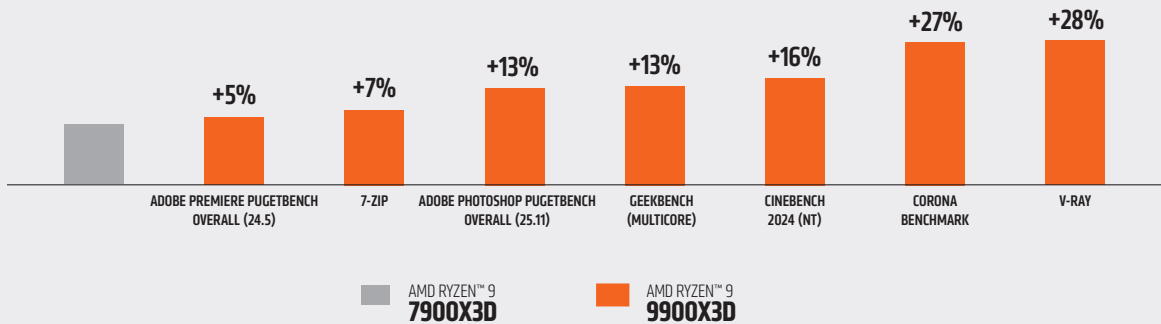
# CREATOR PERFORMANCE



AMD Ryzen™ 9 9950X3D vs AMD Ryzen™ 9 7950X3D<sup>6</sup>



AMD Ryzen™ 9 9900X3D vs AMD Ryzen™ 9 7900X3D<sup>7</sup>



For more information, visit [www.amd.com/RYZEN](http://www.amd.com/RYZEN)

## ENDNOTES

- 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. GD-106
- GD-122: 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
- 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. GD-150
- GNR-31: Testing as of Nov 2024 by AMD Performance Labs using the following game titles tested at 1080p high settings: Black Myth: Wukong, Avatar: Frontiers of Pandora, Hogwarts Legacy, Call of Duty: Black Ops, Starfield, Cyberpunk 2077, Counter Strike 2, Final Fantasy XIV, Hitman 3, Warhammer 20,000: Space Marine 2, Watch Dogs: Legion, Far Cry 6, Ashes of the Singularity. Both AMD Ryzen 9 9950X3D and Ryzen 7 7950X3D systems configured as follows: GIGABYTE X870E AORUS MASTER, 32GB DDR5-6000, Nvidia RTX 4090, KRAKEN X63, Win 11 Pro 26100, VBS ON, SAM/REBAR ON. System manufacturers may vary configurations, yielding different results. GNR-31
- GNR-37: Testing as of January 2025 by AMD Performance Labs on test systems configured as follows: AMD Ryzen 9 7900X3D, 7950X3D, 9900X3D, & 9950X3D system: GIGABYTE X870E AORUS MASTER, Balanced, 2x16GB DDR5-6000, GeForce RTX 4090, VBS=On, SAM=On. KRACKENX63 (Jan 14, 2024) on the following games at 1080p high: Ashes of the Singularity: Escalation, Assassin's Creed Mirage, Assassin's Creed Valhalla, Avatar: Frontiers of Pandora, Baldur's Gate 3, Black Myth: Wukong, Borderlands 3, Call of Duty: Black Ops 6, Counter-Strike 2, Cyberpunk 2077, DIRT 5, Deus Ex: Mankind Divided, Dota 2, F1 23, F1 24, Far Cry 6, Final Fantasy 14 Dawntrail (2024), Forza Horizon 5, Grand Theft Auto V, HITMAN 3, Hogwarts Legacy, Horizon Zero Dawn, LeagueOfLegends, Marvel's Guardians of the Galaxy, Marvel's Spider-Man Remastered, Metro Exodus, Metro Exodus Enhanced Edition, Middle-earth: Shadow of War, Red Dead Redemption 2, Shadow of the Tomb Raider, Star Wars Outlaws, Starfield, Strange Brigade, The Callisto Protocol, The Riftbreaker, Tiny Tina's Wonderlands, Tom Clancy's Ghost Recon Breakpoint, Tom Clancy's Rainbow Six Siege, Total War: WARHAMMER III, Warhammer 40,000: Dawn of War III, Warhammer 40,000: Space Marine 2, Watch Dogs: Legion, Wolfenstein: Youngblood, World of Tanks enCore. System manufacturers may vary configurations, yielding different results. GNR-37
- GNR-29: Testing as of Nov 2024 by AMD Performance Labs using the following benchmarks: PugetBench Premiere Pro 24.5, PugetBench Photoshop 25.11, PugetBench Davinci Resolve 19.0.1, Geekbench 6.3, Blender 4.2.3 Monster and Classroom, Corona Benchmark, Cinebench 2024. Both AMD Ryzen 9 9950X3D and Ryzen 7 7950X3D systems configured as follows: GIGABYTE X870E AORUS MASTER, 32GB DDR5-6000, Nvidia RTX 4090, KRAKEN X63, Win 11 Pro 26100, VBS ON, SAM/REBAR ON. System manufacturers may vary configurations, yielding different results. GNR-29
- GNR-35: Testing as of January 2025 by AMD Performance Labs on test systems configured as follows: AMD Ryzen 9 7900X3D & 9900X3D system: GIGABYTE X870E AORUS MASTER, Balanced, 2x16GB DDR5-6000, GeForce RTX 4090, VBS=On, SAM=On, KRACKENX63 (Jan 14, 2024) in the following applications: Assassin's Creed Mirage, Red Dead Redemption 2, F1 2024, Forza Horizon 5, The Last Of Us Part 1. System manufacturers may vary configurations, yielding different results. GNR-35

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