AMD RADEON™ 9000 SERIES DESKTOP GRAPHICS

QUICK REFERENCE GUIDE

AMD RADEON RX 9000 Series

AMD Radeon™ RX 9000 Series graphics cards are built to deliver ultra-fast gaming, with next-level visuals and future-ready features, supercharged with AI. The new AMD RDNA™ 4 architecture features powerful raytracing and AI accelerators, increased visual quality for video streaming and editing, all backed by continuous optimizations with AMD Software. With 16GB of VRAM, modern display connectivity, and compatibility with existing power supplies, this is the upgrade that will have desktop PCs feeling fast and fresh for years to come.

ULTRA-FAST GAMING

- AMD RDNA™ 4 Compute Units
  - 3rd generation Raytracing Accelerators
  - 2nd Generation AI Accelerators
- AMD HYPR-RX[1] with AMD Fluid Motion Frames 2.1 (AFMF)[2,3]
- AMD Radeon™ Anti-Lag 2[4]

NEXT-LEVEL IMMERSION

- AMD FidelityFX™ Super Resolution[5,6] 4 technology with AI upscaling and Frame Generation
- AMD Radiance DIsplay™ Engine and Enhanced Media Engine

FUTURE-READY FEATURES

- 16GB of memory
- PCIe™ 5.0
- DisplayPort™ 2.1a; HDMI® 2.1b
- AMD FreeSync™ technology
- AMD smart technologies
- AM5 Platform with AMD Ryzen™ 9000 series processors

PRODUCT SPECIFICATIONS

GRAPHICS MODEL	GPU ARCHITECTURE	PROCESS	PCIE® SUPPORT	DISPLAY COMPATIBILITY	GPU CLOCK SPEED (BOOST CLOCK) (UP TO)	AMD RDNA™ 4 COMPUTE UNITS	RAYTRACING ACCELERATORS	AI ACCELERATORS	STREAM PROCESSORS	MEMORY AMOUNT + INTERFACE	AMD 3RD GEN INFINITY CACHE™ TECHNOLOGY	MEMORY BANDWIDTH (UP TO)	TOTAL BOARD POWER	RECOMMENDED PSU	REQUIRED POWER SUPPLY CONNECTORS	FORM FACTOR	COMPETITIVE GRAPHICS
AMD RADEON™ RX 9070 XT	AMD RDNA™ 4	4nm	Gen 5	DisplayPort™ 2.1a HDMI™ 2.1b	2970	64	64	128	4096	16 GB GDDR6 + 256 bit	64 MB	640 GB/s	304W	750W	2x8 pin	Dual-Slot	NVIDIA RTX 4070 Ti Super NVIDIA RTX 4070 Ti
AMD RADEON™ RX 9070	AMD RDNA™ 4	4nm	Gen 5	DisplayPort™ 2.1a HDMI™ 2.1b	2520	56	56	112	3584	16 GB GDDR6 + 256 bit	64 MB	640 GB/s	220W	650W	2x8 pin	Dual-Slot	NVIDIA RTX 4070 Super NVIDIA RTX 4070

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 FIDELITYFX™ SUPER RESOLUTION[6] 4 TECHNOLOGY

- Cutting-edge, ML-powered upscaling and advanced frame generation technologies
- Delivers high-quality, high-performance gaming to help boost framerates in supported games

AI ACCELERATION

- 2nd Generation AI Accelerators for new levels of AI performance and capabilities
- Engineered to perform up to 4X more FP16 operations and up to 8X more INT8 operations across some of the most popular generative workloads when using sparsity[7]

HIGH-PERFORMANCE RAYTRACING

- AMD RDNA™ 4 compute units with redesigned raytracing accelerators for incredible performance and improved image quality

RECOMMENDED USAGE CHART

● BEST ◕ BETTER ◑ GOOD ◔ SUPPORTED ○ NOT SUPPORTED

GRAPHICS MODEL	1080P GAMING	1440P GAMING	4K GAMING	ESPORTS GAMING	AAA GAMING	VR GAMING	GAME STREAMING & VIDEO EDITING	HARDWARE RAYTRACING	WATCHING 4K MEDIA	AI ACCELERATION
AMD RADEON™ RX 9070 XT	●	●	●	●	●	●	●	●	●	●
AMD RADEON™ RX 9070	●	●	◕	●	◕	●	●	◕	●	●

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NEXT STEPS

Find out more by visiting **www.amd.com/RADEON**
For more AMD product training, sign up at **arena.amd.com** and earn rewards!

ENDNOTES

1. GD-225A: AMD HYPR-RX works on the AMD Radeon™ RX 7000 Series GPUs and newer or the Ryzen 7040 Series APUs with integrated RDNA 3 graphics and newer. AMD HYPR-RX allows various features within AMD Software interoperate, working at the same time, including Radeon Super Resolution, FidelityFX Super Resolution, Radeon Anti-Lag, Radeon Boost, and AMD Fluid Motion Frames where applicable to select titles. GD-225A
2. GD-231: AMD Fluid Motion Frames interpolation technology when used with AMD FidelityFX Super Resolution (FSR) 3 inserts 1 frame between existing ones which can therefore enable up to 2x the framerate in supported games. GD-231
3. GD-234: AMD Fluid Motion Frames, or AFMF, is a frame generation technology designed to increase frame rates and smooth movement for game winning performance with minimal impact to image quality. AFMF is integrated into AMD Software and currently supports the Radeon RX 6000 and 7000 series graphics cards. GD-234
4. GD-242: AMD Radeon Anti-Lag 2 is available in select games which require game developer integration and is supported on select AMD RDNA™ architecture and above discrete and integrated graphics cards. See https://www.amd.com/en/products/software/adrenalin/radeon-software-anti-lag.html for additional information. GD-242
5. GD-172: For additional information about FidelityFX technology, see https://www.amd.com/en/technologies/radeon-software-fidelityfx. GD-172
6. GD-187b: AMD FidelityFX Super Resolution (FSR) versions 1, 2, 3, and 4 are available on select games which require game developer integration and are supported on select AMD products. AMD does not provide technical or warranty support for AMD FidelityFX Super Resolution enablement on other vendors' graphics cards. See https://www.amd.com/en/technologies/fidelityfx-super-resolution for additional information. GD-187b
7. RX-1143: Based on specifications of AMD RDNA 4 architecture compared to AMD RDNA 3 architecture as of December 2024. RX-1143