

# AMD RYZEN<sup>™</sup> 8000G SERIES PROCESSORS

### Leading the AMD Ryzen<sup>®</sup> AI era and top-tier gaming experience.

1080p gaming with fast desktop PC processor graphics that will play today's demanding games in full HD.

# TARGET AUDIENCE



AAA GAMERS



STREAMERS WHO WANT HIGH DEFINITION VISUALS



GAMERS WHO WANT UP-GRADE-READY PERFORMANCE

### SELL IT IN 30 SECONDS

#### PLAY DEMANDING PC GAMES WITHOUT A GRAPHICS CARD

- Impressive power of Radeon<sup>™</sup> 700M graphics built-in for full-HD 1080p gaming out-of-the-box.
- Smooth full HD gaming at up to 60+ FPS without a graphics card.<sup>10</sup>
- Built ready for a graphics card upgrade when ready.
- Only AMD can power this kind of next-gen, small form factor desktop gaming with built-in graphics.
- Whatever the setting or resolution, lead your team to victory with the 8-core AMD gaming processor.
- Play in full high definition with impressive AMD Radeon<sup>™</sup> 780M built-in graphics on the AMD Ryzen<sup>™</sup> 7 8700G processor.

#### **ELEVATED PERFORMANCE**

- Up to 8 cores and 16 processing threads.
- Get a huge performance boost from exclusive AMD HYPR-RX with Fluid Motion Frames.<sup>7</sup>
- Superior processor performance compared to a more expensive processor and graphics card combo.<sup>2</sup>
- Unlocked for higher overclocked performance at the touch of a button.<sup>11</sup>
- A next-gen, high-performance platform that grows with you, with PCIe Gen 5 memory.

#### **PERSONAL AI PROCESSING**

- The world's first desktop processor with a dedicated AI engine, or Neural Processing Unit (NPU), for cutting-edge innovation.<sup>8</sup>
- With AMD Ryzen<sup>™</sup> AI, AMD Ryzen<sup>™</sup> 8000G Series processors feature technology uniquely capable of enabling Artificial Intelligence.<sup>4</sup>
- Over 100 AI experiences enabled for AMD Ryzen™ AI from the top software applications.
- New capabilities with AMD Ryzen<sup>™</sup> AI like AI-powered noise cancellation.<sup>9</sup>

### AMD RYZEN™ 8000G SERIES PROCESSORS

PROCESSORS	CORES/ THREADS	PLATFORM	<b>FREQUENCY</b> <sup>3</sup>	CACHE	ARCHITECTURE	PCIE®	GRAPHICS	RYZEN AI
AMD RYZEN <sup>™</sup> 7 8700G	8/16	AM5	Up To 5.1/4.2 GHz	24MB	"Zen 4"	Gen 4	Radeon <sup>™</sup> 780M Graphics	Yes
AMD RYZEN <sup>™</sup> 5 8600G	6/12	AM5	Up To 5.0/4.3 GHz	22MB	"Zen 4"	Gen 4	Radeon <sup>™</sup> 760M Graphics	Yes
AMD RYZEN <sup>™</sup> 5 8500G	6/12	AM5	Up To 5.0/3.5 GHz	22MB	2x "Zen 4" + 4x "Zen4c"	Gen 4	Radeon <sup>™</sup> 740M Graphics	N/A
AMD RYZEN <sup>™</sup> 3 8300G	4/8	AM5	Up To 4.9/3.4 GHz	12MB	1x "Zen 4" + 3x "Zen4c"	Gen 4	Radeon™ 740M Graphics	N/A

# SMOOTH FULL-HD GAMING



### SMOOTH FULL-HD GAMING<sup>1</sup>



AMD Ryzen 7 8700G with built-in Radeon 780M Average Frame Rates, 1080p low detail settings (unless otherwise specified), (up to)



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1. PXD-06: Testing as of Dec 2023 by AMD Performance Labs on test systems configured with Ryzen 8700G/8600G/8500G CPUs, integrated Radeon 780M/760M/740M graphics, ASRock B650 Pro RS motherboard, 32GB 6400MHz RAM (2x16GB), Samsung 980 Pro 1TB WWe, and Windows 11 Pro s. similarly configured systems with Intel Core i7-14700K processor, integrated Intel UHD 770 graphics, MSI MPC Z600 Carbon motherboard, 32CB 6400MHz RAM (2x16CB), Samsung 980 Pro 1TB NVMe, Windows 11 Pro on the following titles at 1080p, VBS enabled. Far Cry 6, F1 2022, Borderlands 3, CyberPunk 2077, Final Fantasy 14, Dota 2, Hitman 3. System manufacturers may vary configurations, yielding different results. PXD-06. 2. PXD-07: Testing as of Dec 2023 by AMD Performance Labs on a test system configured with a Ryzen 8700C, integrated Radeon 780M graphics, ASRock B650 Pro RS motherboard, 32CB 6400MHz RAM (2x16CB), Samsung 980 Pro 1TB NVMe, windows 11 Pro vs.

a similarly configured system with an Intel Core is-13400F processor, discrete GeForce GTX 1650 graphics, Jugabyte B760 Gaming X motherboard, 320B 4800MHz RAM (2x16GB), Samsung 980 Pro TIB NVNe, and Windows 11 Pro on using (a) the following game titles at 1080p, low details, VBS enabled: Grand Theft Auto V, Baldur's Gate 3, Lies of P, Star Wars jedi Survivor, Alan Wake 2, Starfield; and (b). the following productivity applications and benchmarks: 3dMark Physics, Kraken, Puget Photoshop, PassMark CPU, PCmark 10, POV-Ray (1t), 7-Zip, Handbrake, LAME. System manufacturers may vary configurations, yielding different results. PXD-07.

a. Co-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. CD-150.

4. GD-220b: Ryzen 🐃 Al is defined as the combination of a dedicated Al engine, AMD Radeon 🕷 graphics engine, and Ryzen processor cores that enable Al capabilities. OEM and ISV enablement is required, and certain Al features may not yet be optimized for Ryzen Al processors. Ryzen AI is compatible with: (a) AMD Ryzen 7040 and 8040 Series processors except the Ryzen 5 7540U, Ryzen 5 8540U, Ryzen 3 7440U, and Ryzen 3 8440U processors; and (b) all AMD Ryzen 8000G Series desktop processors except the Ryzen 5 8500G/GE and Ryzen 3 8300G/GE. Please check with your system manufacturer for feature availability prior to purchase. GD-220b.

5. PHX-03: As of May 2023, AMD has the first available dedicated Al engine on an x86 Windows processor, where 'dedicated Al engine' is defined as an Al engine that has no function other than to process Al inference models and is part of the x86 processor die. For detailed information, please check. https://www.amd.com/en/products/ryzen-ai. PHX-3. 6. RS-634: Testing conducted by AMD as of December 18th, 2023, on a test system configured with a Ryzen 7 8700G APU, Radeon 780M integrated graphics, 32GB DDR5-6400, Asus Prime B650M motherboard, and Windows 11 Pro, with HYPR-RX ON, RSR/FSR ON, AMD

Software: Adrenalin Edition 24.11 and AFMF ON/OFF, on various titles including Alan Wake 2, Baldur's Gate 3, Lies of P, Star Wars Jedi Survivor, and Starfield. Game tested at 1080p resolution. Performance may vary. System manufacturers may vary configurations, yielding different results. RS-634. 7. GD-225a: AMD HYPR-RX works on the AMD Radeon<sup>™</sup> 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.

8. PXD-03: As of January 2024, AMD has the first available dedicated AI engine on a desktop PC processor, where 'dedicated AI engine' is defined as an AI engine that has no function other than to process AI inference models and is part of the x86 processor die. For detailed information, please check: https://www.amd.com/en/products/ryzen-ai. PXD-03. As of January 2024, AMD has the first available dedicated AI engine on a desktop PC processor, where 'dedicated AI engine' is defined as an AI engine that has no function other than to process Al inference models and is part of the x86 processor die. For detailed information, please check: https://www.amd.com/en/products/ryzen-ai. PXD-03.

9. GD-201: Al-powered noise suppression, USB4, and Wi-Fi GE require OEM enablement. Please check with your PC manufacturer prior to purchase. GD-201 10. PXD-04: Testing as of Dec 2023 by AMD Performance Labs on a test system configured with a Ryzen 7 8700C, integrated Radeon 780M graphics, ASRock B650 Pro RS motherboard, 32GB 6400MHz RAM (2x16GB), Samsung 980 Pro 1TB NVMe, and Windows 11 Pro on the following titles at 1080p, VBS enabled, low details: Cyberpunk 2077, Far Cry 6, Assassin's Creed: Valhalla, Shadow of the Tomb Raider, Tiny Tina's Wonderlands, Hitman 3, Borderlands 3, Metro Exodus, Grand Theft Auto 5, F1 2022, Dota 2, League Of Legends, World of Tanks Encore. System manufacturers may vary configurations, yielding different results. PXD-04. 11. 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 / undervolting AMD processors, including, without limitation, failure of or damage to hardware, reduced system performance and/or data loss, corruption or vulnerability. GD-106.

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#### Performance Uplift with AMD HYPR-RX with Fluid Motion Frames<sup>6</sup>