

WHO IT'S FOR



Creatives, gamers, and everyday users looking for a powerful laptop with trusted performance



Users who want to explore how AI can enhance their everyday PC experience

PREMIUM EXPERIENCES WITH AMD RYZEN™ 8040 SERIES PROCESSORS



TRUSTED, PREMIUM PERFORMANCE

Experience pure speed as you stream, browse, work, and play with trusted performance you can count on



INCREDIBLE BATTERY LIFE

Go further with smart battery management designed to let you work and play unplugged



POWERFUL GRAPHICS

Bring your games and creations to life with powerful AMD Radeon™ 700M graphics built in



THE POWER OF PERSONAL AI

Experience the power of personal AI processing with AMD Ryzen™ AI and unlock new experiences that will change the way you work and play¹

GENERATIONAL PERFORMANCE GAINS

AMD Ryzen™ 9 8945HS vs. Ryzen™ 9 7940HS processor²



Up to **10% Faster Graphics**



Up to **36% Faster Video Encoding**



Up to **33% Faster Audio Encoding**



Up to **10% Faster at Excel**

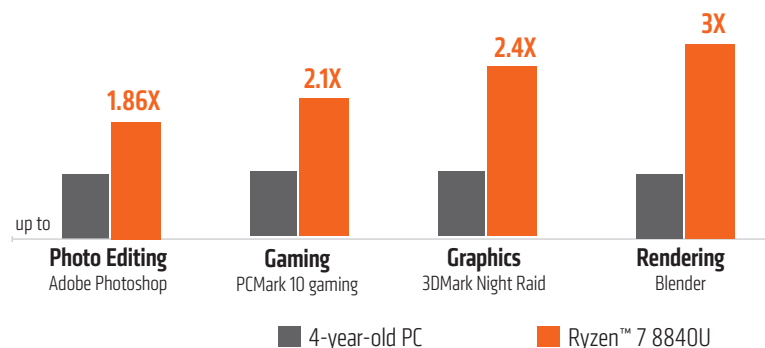


Up to **6% Faster at PowerPoint**

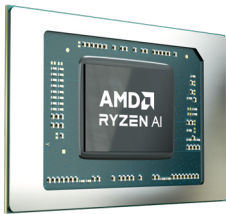
UPGRADE FROM YOUR 4-YEAR-OLD PC³

Many customers will be buying up from an old laptop that may be lagging, freezing, or struggling to run the latest games. AMD Ryzen™ 8040 Series processors bring the performance uplift they need.

- Do in 10 minutes what used to take 30
- Faster graphics mean more immersive entertainment
- Edit photos in almost half the time
- Feel real-time responsiveness when multitasking



BRINGING MORE AI POWER WITH AMD RYZEN™ AI



Harness the power of AI with AMD Ryzen™ 8040 Series processors, bringing more power and AI-readiness capabilities.

- UP TO 16 NPU TOPS
- UP TO 39 TOTAL TOPS NPU + CPU + GPU
- UP TO 1.6X more NPU power vs. previous gen⁴
- UP TO 40% FASTER running AI LLM models vs previous gen⁵ (Llama2-7B & Vision Models)

MODELS & SPECS

4nm	"Zen 4"	AMD RDNA™3 graphics architecture	Up to 5.2GHz Boost ⁶	AMD Ryzen™ AI		
MODEL	CORES/THREADS	BOOST FREQUENCY ⁶ (UP TO)	CTDP	TOTAL CACHE	GRAPHICS	RYZEN™ AI
AMD Ryzen™ 9 8945HS	8/16	5.2 GHz	35-54W	24MB	AMD Radeon™ 780M	Yes
AMD Ryzen™ 7 8845HS	8/16	5.1 GHz	35-54W	24MB	AMD Radeon™ 780M	Yes
AMD Ryzen™ 7 8840HS	8/16	5.1 GHz	20-30W	24MB	AMD Radeon™ 780M	Yes
AMD Ryzen™ 7 8840U	8/16	5.1 GHz	15-30W	24MB	AMD Radeon™ 780M	Yes
AMD Ryzen™ 5 8645HS	6/12	5.0 GHz	35-54W	22MB	AMD Radeon™ 760M	Yes
AMD Ryzen™ 5 8640HS	6/12	4.9 GHz	20-30W	22MB	AMD Radeon™ 760M	Yes
AMD Ryzen™ 5 8640U	6/12	4.9 GHz	15-30W	22MB	AMD Radeon™ 760M	Yes
AMD Ryzen™ 5 8540U	6/12	4.9 GHz	15-30W	22MB	AMD Radeon™ 740M	No
AMD Ryzen™ 3 8440U	4/8	4.7 GHz	15-30W	12MB	AMD Radeon™ 740M	No

1. Ryzen™ AI is defined as the combination of a dedicated AI engine, AMD Radeon™ graphics engine, and Ryzen processor cores that enable AI capabilities. OEM and ISV enablement is required, and certain AI features may not yet be optimized for Ryzen AI processors. Ryzen AI is compatible with: (a) AMD Ryzen 7040 and 8040 Series processors except 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.

2. Testing as of Sept 2023 by AMD Performance Labs using the following benchmarks: 3DMark, 7Zip, Handbrake, LAME, Adobe Premiere, PCMark 10. Configuration for AMD Ryzen 9 8945HS processor: integrated Radeon 780M graphics, 16GB RAM 7500MHz, Samsung 980 Pro 1TB NVMe, Windows 11 Pro. Configuration for AMD Ryzen 9 7940HS processor: integrated Radeon 780M graphics, 16GB RAM 7500MHz, Samsung 980 Pro 1TB NVMe, Windows 11 Pro. Both with VBS enabled. PCMark and 3DMark are registered trademarks of Futuremark Corporation. PC manufacturers may vary configurations yielding different results. Results may vary. HWK-08.

3. Testing as of Dec 2023 by AMD Performance Labs. System configuration for AMD Ryzen 7 8840U processor: ASUS Zenbook, AMD Radeon 780M graphics, 16GB 7500MHz RAM, 1TB SSD, Windows 11 Pro. System configuration for AMD Ryzen 7 4800U processor: Lenovo Yoga Ideapad, AMD Radeon graphics, 16GB RAM, 256GB SSD, Windows 10 Pro. Benchmarks tested: 3DMark Night Raid, Cinebench R23, PCMark 10 suite, Puget Adobe Photoshop, Blender classroom, PCMark and 3DMark are registered trademarks of UL Solutions. PC manufacturers may vary configurations yielding different results. Results may vary. HWK-63.

4. Based on AMD internal analysis of AMD Ryzen 8040 Series processors with an AI engine TOPS specification of 16 TOPS vs. previous gen Ryzen 7040 Series processors with an AI engine TOPS specification of 10 TOPS. HWK-17.

5. Based on testing by AMD as of 12/2023, measuring AI LLM performance on Llama2-7B model measurements using Pytorch in Eager Mode. Vision Models measurements using ONNX Runtime, with ONNX Perf tool, and Vitis AI ONNX quantizer. Vision Models include ResNet50 (fps), YoloV3 (fps), ESRGAN (mm). System configurations: AMD Ryzen 9 7940HS with Radeon 780M Graphics on an AMD reference platform with 16GB DDR5, SSD, Windows 11 Pro vs. a similarly configured AMD Ryzen 7 8840HS processor with Radeon 780M graphics. System manufacturers may vary configuration, yielding different results. Results may vary. HWK-19.

6. 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.

*Zen 4" is a codename only and not an AMD product name. ©2023 Advanced Micro Devices, Inc. ©2023 Advanced Micro Devices, Inc. All rights reserved. AMD, the AMD Arrow logo, and combinations thereof are trademarks of Advanced Micro Devices, Inc. Other names are for informational purposes only and may be trademarks of their respective owners. May 2024 PID#242681050