

### AMD RYZEN™ 7 8840U PROCESSOR



INTEL CORE ULTRA 7 155H PROCESSOR

# AMD WINS ACROSS PERFORMANCE, EFFICIENCY AND AI

RADEON

**POWERFUL** 

GRAPHICS



AMD's **"Zen 4" 4nm** architecture is the most advanced<sup>1</sup>, for optimal efficiency and performance. Intel is on 7nm, named as "Intel 4".



Experience **faster performance** across productivity and content creation benchmarks<sup>2</sup> (Ryzen 7 8840U vs. Core Ultra 7 155H) Play the latest games in full HD faster than competitive processors with powerful built-in AMD Radeon<sup>™</sup> 700M graphics<sup>3</sup> (Ryzen 7 8840U with 780M graphics vs Core

Ryzen 7 8840U with 780M graphics vs Core Ultra 7 155H with Intel Arc graphics)

# IK X

BETTER EFFICIENCY

Equipped with the latest AMD smart power management features, so users can enjoy **better performance while using less power**<sup>4</sup>

(Ryzen 7 8840U vs. Core Ultra 7 155H)



AMD continues its AI leadership with **more AI-enabling power** and **better performance** on select AI applications vs the competition<sup>5</sup>

(Ryzen 7 8840U vs. Core Ultra 7 155H)

## PURE SPEED TO WORK AND CREATE FASTER





## **BETTER POWER EFFICIENCY & BATTERY LIFE IN REAL WORLD MULTITASKING**





When running Microsoft Teams call + background blur + Procyon productivity benchmarks with AMD Ryzen<sup>™</sup> 7 8840U processor vs an Intel Core Ultra 7 155H processor



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## WINNING GAME PERFORMANCE<sup>3</sup>



#### POWERFUL AMD RADEON<sup>™</sup> 700M **GRAPHICS BUILT-IN**

- Smooth 1080p gaming, rich content creation, and immersive entertainment up to 20% faster graphics<sup>3</sup>

### LEADERSHIP AI WITH AMD RYZEN<sup>™</sup> AI



Enjoy 100+ AI-enabled experiences available today on Ryzen<sup>™</sup> AI PCs



#### FASTER AI PERFORMANCE

#### **IPTO 79% FASTER**

AT COMPUTER VISION MODELS WITH YOLOV8 Ryzen<sup>™</sup> 7 8840U vs. Core Ultra 7 155H<sup>₅</sup>

#### UP TO 85% FASTER

AT AI VIDEO EDITING WITH DAVINCI RESOLVE Ryzen<sup>™</sup> 7 8840U vs. Core Ultra 7 155H<sup>₅</sup>

#### UP TO 28% FASTER AT AI TEXT TO IMAGE WITH STABLE DIFFUSION

Ryzen<sup>™</sup> 7 8840U vs. Core Ultra 7 155H<sup>5</sup>

Model	Architecture	Cores/Threads	Cache	Boost Freq <sup>7</sup> (up to)	TDP	TOTAL TOPS
AMD Ryzen <sup>™</sup> 7 8840U with Radeon <sup>™</sup> 780M graphics	4nm "Zen 4"	8C / 16T	24 MB	5.1 GHz	15-30W	39 TOPS
Intel Core <sup>™</sup> Ultra 7 155H with Intel Arc graphics	7nm Intel 4	16C (6P + 8e + 2LPe) / 22T	24 MB	4.8 GHz	20-65W	34 TOPS

#### FOOTNOTES:

- GD-203 Based on a smaller node size of the AMD processor for an x86 platform, as of September 2023. GD-203.
- WW-30 Testing as of Dec 2023 by AND Performance Labs on a test system configured with a Ryzen 7 8840U, integrated Radeon 780M graphics, 16GB 5600MHz RAM, Samsung 980 Pro 1TB NVMe, Windows 11 Pro vs. A similarly configured system with an Intel Core Ultra 7 155H, integrated fix fact carphics, 16GB 5600MHz RAM, 16B S50, Windows 11 Pro, Both with VBS enabled. Testing to measure performance in the following applications: Procyon Office Productivity Suite, PCMark 10, 7zip, Handbrake, LAME, Puget Adobe Photoshop, Puget Adobe Premiere, Blender Classroom, Procyon Photo and Video Editing. PCMark is a registered trademark of UL Solutions. System manufacturers may vary configurations, yielding different results.
- HWK-22 Testing as of Dec 2023 by AMD performance Labs on a test system configured with Ryzen 7 8840U, integrated Radeon 780M graphics, 16GB 5600MHz RAM, Samsung 980 Pro 1TB NVMe, and Windows 11 Pro vs. a similarly configured system with an Intel Core Ultra 7 155H, integrated Iris Arc Graphics, 16GB 5600MHz RAM, Samsung 980 Pro 1TB NVMe, and Windows 11 Pro vs. a similarly configured system with an Intel Core Ultra 7 155H, integrated Iris Arc Graphics, 16GB 5600MHz RAM, Samsung 980 Pro 1TB NVMe, and Windows 11 Pro vs. a similarly configured system with VBS enabled. Testing to measure performance in the 3DMark Night Raid application and in the following titles at 1080p: Borderlands 3 (very low), Far Cry 6 (low), Hitman 3 (low), League of Legends (low), Shadow of the Tomb Raider (lowest), Tiny Tinas Wonderland (low), World of Tanks Encore (minimum). System manufacturers may vary configurations, yielding different results.

HWK-31 Testing as of Dec 2023 by AMD Performance Labs on an ASUS Zenbook 14 laptop configured with a Ryzen 7 8840U processor, integrated Radeon 780M graphics, 16GB RAM 7500MHz, 1TB SSD, VBS ON, and Windows 11 Pro vs. A similarly configured system with an Intel Core Ultra 7 155H, integrated Intel Arc graphics, 32GB 7467MHz RAM, 1TB SSD, VBS ON, and Windows 11 Pro. Both systems running with the camera and background blur ON, in Power Efficiency mode using the following tests: Microsoft Teams + Procyon Wall power consumed (watts). Each Microsoft Teams call consists of 9 participants (3X3) while running the UL Procyon benchmark. System manufacturers may vary configurations, yielding different results. 4

HWK-32 testings of Data 2013 by AMD Performance Labs on a test system configured with a Ryse 78 8840U, integrated Radeon 780M graphics, IGED BMDRS RAM, Samsung 980 Pro TTB NVMe, and Windows 11 Pro vs. a similarly configured system with an Intel Core Ultra 7 155H on an MSI Prestige 16 AI notebook, with integrated lris Arc Graphics, 32GB DDRS RAM, TTB SSD, and Windows 11 22H2 to test performance on using the following AI models: MobileNetv3, ESRGAN, Volov8, Deeplabv3, StableDiffusion1.5 (Diive), DaVinci Resolve – HD to UHD 2x Enhanced, Procyon AI Benchmark – Float16, Procyon AI Benchmark – Float32. System manufacturers may vary configurations, yielding different results. HWK-34 Testing as of Jan 2024 by AMD Performance Labs. Configuration for AMD Pyren 7 8840U processor: ASUS Zenbook 14 laptop, integrated Radeon 780M graphics, AMD Ryzen AI, 16GB RAM 7500MHz, TTB SSD, VBS ON, Windows 11 Pro. Both systems running Microsoft Teams - Windows Studio Effects (Auto framing, Eye contact, Background blur) in Power Efficiency mode. Each Microsoft Teams call consists of 9 participants (3X3). Laptop manufacturers may vary configurations yielding different results.

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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

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