AMD Ryzen™ AI 300 Series Processors

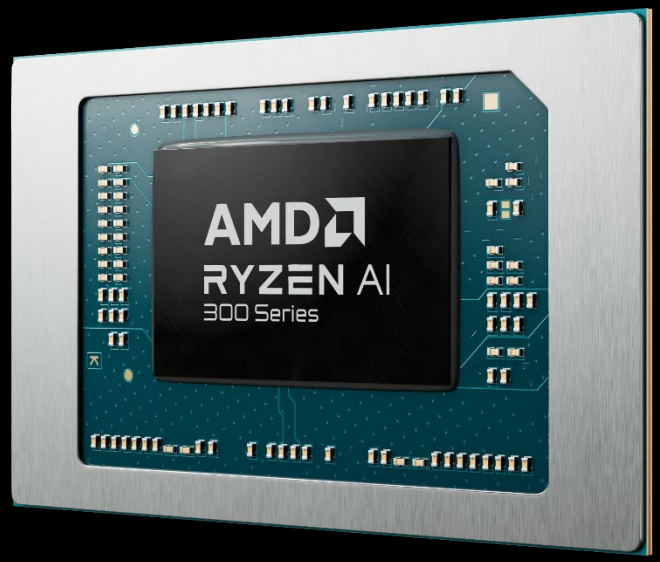
Vs. Qualcomm Snapdragon X Elite processors

AMD
together we advance_

AMD Ryzen™ AI 300 Series processors

The No Compromise Choice for Copilot+ PCs

- Supporting a wide range of TDPs with the option for discrete graphics for a full portfolio of platform choices
- Seamless compatibility with the Windows application and gaming ecosystem
- Leadership CPU, GPU, NPU
- Power efficiency optimizations for long-lasting battery life



AMD Ryzen™ AI 300 Series processors

Performance, Power Efficiency, and Premium Platforms

Leadership Performance & Compatibility

Faster performance across productivity, content creation, and graphics benchmarks than Qualcomm with seamless compatibility across the entire Windows ecosystem

The Clear Choice for Gaming

Dominant gaming performance and full compatibility across thousands of game titles, with options for discrete graphics

Industry Leading AI Engine

Industry leading NPU with up to 50 TOPS, surpassing Microsoft Copilot+ requirements and Qualcomm

Power Efficient and Performant

Ryzen™ AI 300 Series processors deliver incredible efficiency without sacrificing performance, for the ideal laptop experience with battery life that lasts

Diverse Platform Portfolio

A range of TDPs, graphics, and platform choices give customers everything they need from ultrathin to robust gaming platforms – the only processor ready for the entire market of Copilot+ PCs

Compares using Ryzen AI 9 HX 370 processor. See endnotes: STX-04, STX-32, STX-52, STX-55, STX-56, STX-60, STX-62, GD-243

Leadership Performance
vs Qualcomm Snapdragon X Elite

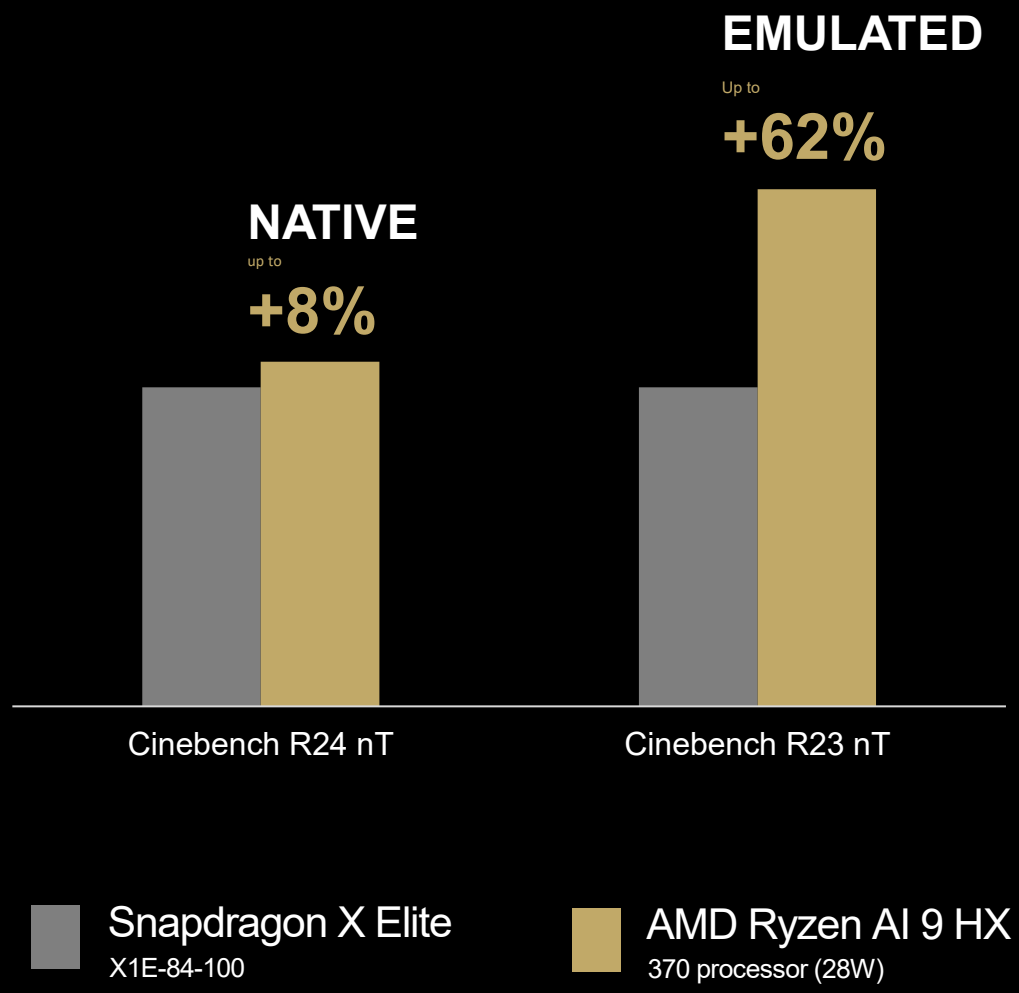
AMD Ryzen™ AI 9 HX 370 processor vs.	 WEB BROWSING Kraken	 PRODUCTIVITY Procyon Office	 CONTENT CREATION Blender	 GRAPHICS Geekbench 6.3 OpenCL
Qualcomm Snapdragon X Elite **X1E-78-100** (up to)	**+41%**	**+16%**	**+87%**	**+77%**
Qualcomm Snapdragon X Elite **X1E-80-100** (up to)	**+19%**	**+19%**	**+85%**	**+78%**
Qualcomm Snapdragon X Elite **X1E-84-100** (up to)	**+18%**	**On par**	**+112%**	**+52%**

See endnotes: STX-60, STX-62, STX-55

The Performance Penalty of Emulation

Applications that lack native Arm compatibility require running in emulation. This can cause latency and performance issues, crashes, or app launch issues.

This results in a **54% performance swing** when running Emulated vs ARM Native Cinebench



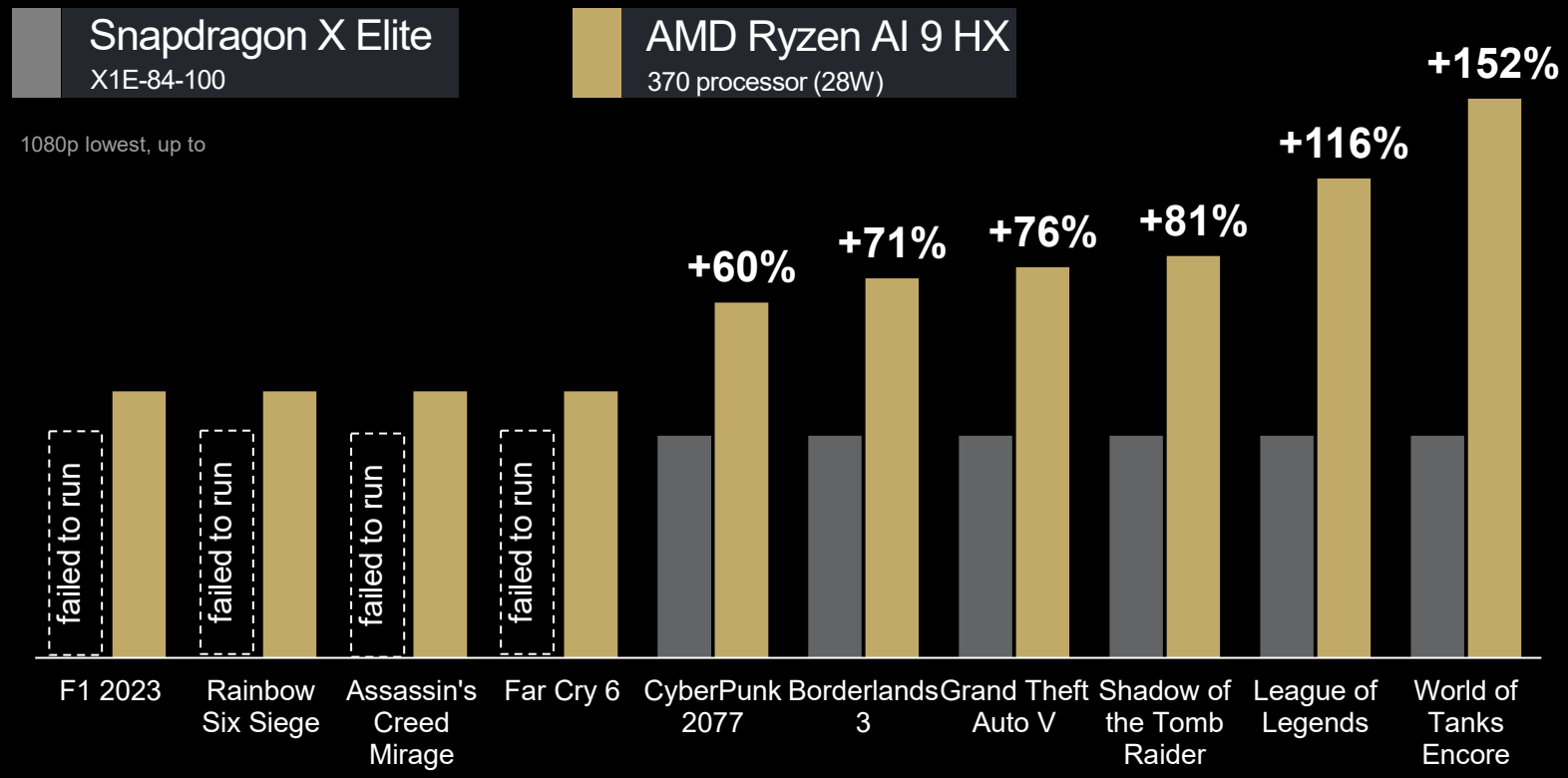
See endnotes: STX-67

Gaming Leadership

Seamless game compatibility and dominant performance
vs. Qualcomm processors on integrated graphics

Compatibility issues persist for ARM gaming, leading to poor performance or games simply not launching on Qualcomm PCs

Qualcomm offers no discrete graphics options, limiting users who want to run more demanding gaming or content creation



See endnotes: STX-56

Battery Life That Lasts

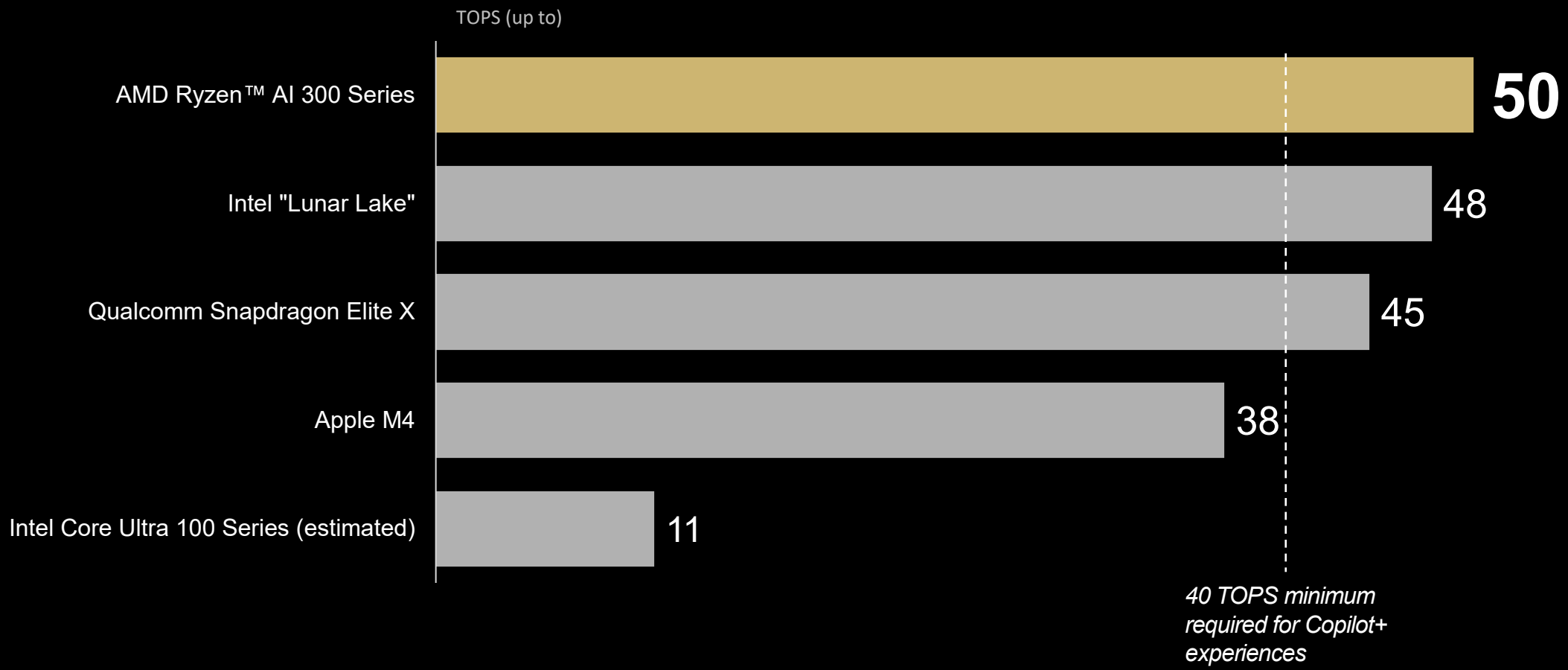
Battery life that competes with similar OLED platforms from Qualcomm without sacrificing performance

AMD Ryzen™ AI 9 HX 370 processor 16” laptop with OLED display	**Qualcomm Snapdragon X Elite X1E-84-100** 16” laptop with AMOLED display	**Qualcomm Snapdragon X Elite X1E-78-100** 15” laptop with OLED display	**Qualcomm Snapdragon X Elite X1E-78-100** 14.5” laptop with OLED display
Up to **17.3** hours	Up to **16.1** hours	Up to **12.1** hours	Up to **18.6** hours
78Whr battery	51Whr battery	70Whr battery	70Whr battery

See endnotes: STX-32

World's Most Powerful NPU

Ready for the next-generation of AI apps and software



See endnotes: STX-04, STX-GD-243

SUMMARY

AMD Ryzen™ AI 300 Series processors

Performance and compatibility advantage vs Qualcomm

	AMD Ryzen™ processors	Qualcomm Snapdragon X Elite
Compatibility	✓ All games and applications just work; seamless compatibility and extensive library of software and games	✗ Compatibility issues persist. Numerous games and apps run on emulation, crash, or won't launch at all on ARM PCs
Performance	✓ Powerful processing and native x86 performance deliver winning experience	✗ Emulation introduces latency and performance issues
Graphics	✓ Winning integrated graphics performance, with discrete graphics options	✗ No discrete graphics options
Memory Options	✓ LPDDR5 / DDR5	✗ LPDDR5 only

Compares using Ryzen AI 9 HX 370 processor. See endnotes: STX-55, STX-56

FOOTNOTES:

- Based on AMD product specifications and competitive products announced as of May 2024. AMD Ryzen™ AI 300 Series processors' NPU offer up to 50 peak TOPS. AI PC is defined as a laptop PC with a processor that includes a neural processing unit (NPU). STX-04.
- As of May 2024, AMD has the first available NPU on a laptop PC processor (AMD Ryzen™ AI 300 Series processor) that supports Block FP16 functionality, 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. STX-16.
- Testing as of May 2024 by AMD Performance Labs using Video Playback battery life test. Test methodology: Local video playback of a fullscreen 1080p video in the Movies & TV app. 150 nits, WiFi connected to a router with no external network access. Power efficiency power mode. Configuration for laptops tested: ASUS Zenbook S 16 - AMD Ryzen™ AI 9 HX 370 processor, 16" OLED display, 78Whr battery, 32GB RAM, 1TB SSD, Windows 11. ASUS Vivobook S 15 - Qualcomm Snapdragon X Elite X1E-78-100, 15" OLED display, 70Whr battery, 32GB RAM, 1TB SSD, Windows 11. Lenovo Yoga Slim 7x - Qualcomm Snapdragon X Elite X1E-78-100, 14.5" OLED display, 70Whr battery, 32GB RAM, 1TB SSD, Windows 11. Microsoft Surface Pro – Qualcomm Snapdragon X Elite X1E-80-100, 13" OLED display, 51Whr battery, 32GB RAM, 1TB SSD, Windows 11. Samsung Galaxy Book4 Edge – Qualcomm Snapdragon X Elite X1E-84-100, 16" AMOLED display, 62Whr battery, 16GB RAM, 1TB SSD, Windows 11. Laptop manufactures may vary configurations yielding different results. STX-32
- Testing as of July 2024 by AMD Performance Labs using the following benchmark tests: Handbrake, Cinebench R23, Cinebench R24, Geekbench 6.3 Opencl, Procyon office, Kraken, 7Zip, Blender, PCMark 10. Configuration for laptops tested: ASUS Zenbook S 16 - AMD Ryzen™ AI 9 HX 370 processor, 16" OLED display, 78Whr battery, 32GB RAM, 1TB SSD, Windows 11. Samsung Galaxy Book4 Edge – Qualcomm Snapdragon X Elite X1E-84-100, 16" AMOLED display, 62Whr battery, 16GB RAM, 1TB SSD, Windows 11. Both with VBS enabled. PCMark is a registered trademark of UL Solutions. Laptop manufactures may vary configurations yielding different results. STX-55
- Testing as of July 2024 by AMD Performance Labs using the following games tested at 1080p lowest settings: Borderlands 3, CyberPunk 2077, F1 2022, Grand Theft Auto 5, League of Legends, Shadow of the Tomb Raider, Tiny Tina's Wonderlands, World of Tanks Encore, F1 2023, Far Cry 6, Hitman 3, Rainbow Six Siege, Assassin's Creed Mirage. Configuration for laptops tested: ASUS Zenbook S 16 - AMD Ryzen™ AI 9 HX 370 processor, 16" OLED display, 78Whr battery, 32GB RAM, 1TB SSD, Windows 11. Samsung Galaxy Book4 Edge – Qualcomm Snapdragon X Elite X1E-84-100, 16" AMOLED display, 62Whr battery, 16GB RAM, 1TB SSD, Windows 11. Both with VBS enabled. Laptop manufactures may vary configurations yielding different results. STX-56
- Testing as of July 2024 by AMD Performance Labs using the following benchmark tests: Cinebench R23, Cinebench R24, Geekbench 6.3, Procyon office, Kraken, 7Zip, Blender, PCMark 10, 3DMark Wildlife Extreme. Configuration for laptops tested: ASUS Zenbook S 16 - AMD Ryzen™ AI 9 HX 370 processor, AMD Radeon 890M graphics, 16" OLED display, 78Whr battery, 32GB RAM, 1TB SSD, Windows 11. ASUS Vivobook S 15 – Qualcomm Snapdragon X Elite X1E-78-100 processor, Qualcomm Adreno graphics, 15" OLED display, 70Whr battery, 32GB RAM, 1TB SSD, Windows 11. Both with VBS enabled. PCMark and 3DMark are registered trademarks of UL Solutions. Laptop manufactures may vary configurations yielding different results. STX-60
- Testing as of July 2024 by AMD Performance Labs using the following benchmark tests: Cinebench R23, Cinebench R24, Geekbench 6.3, Procyon office, Kraken, 7Zip, Blender, PCMark 10, Wildlife Extreme Unlimited. Configuration for laptops tested: ASUS Zenbook S 16 - AMD Ryzen™ AI 9 HX 370 processor, AMD Radeon 890M graphics, 16" OLED display, 78Whr battery, 32GB RAM, 1TB SSD, Windows 11. Dell XPS 13 – Qualcomm Snapdragon X Elite X1E-80-100 processor, Qualcomm Adreno graphics, 13" display, 16BRAM, 512GB SSD, Windows 11. Both with VBS enabled. PCMark is a registered trademark of UL Solutions. Laptop manufactures may vary configurations yielding different results. STX-62
- Testing as of July 2024 by AMD Performance Labs using Cinebench R23 and Cinebench R24. Configuration for laptops tested: AMD Ryzen™ AI 9 HX 370 processor: ASUS Zenbook S 16, AMD Radeon™ 890M integrated graphics, 16" display, 32GB 7500MHz RAM, 1TB SSD, Windows 11. Qualcomm Snapdragon X Elite X1E84100 processor: Samsung Galaxy Book 4, Adreno Graphics, 16GB 8448MHz RAM, 512GB SSD, Windows 11. All systems run on "Balanced" mode with VBS ON. Laptop manufactures may vary configurations yielding different results. STX-67
- 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; (b) AMD Ryzen AI 300 Series processors, and (c) 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-220c.
- Trillions of Operations per Second (TOPS) for an AMD Ryzen processor is the maximum number of operations per second that can be executed in an optimal scenario and may not be typical. TOPS may vary based on several factors, including the specific system configuration, AI model, and software version. GD-243.
- 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