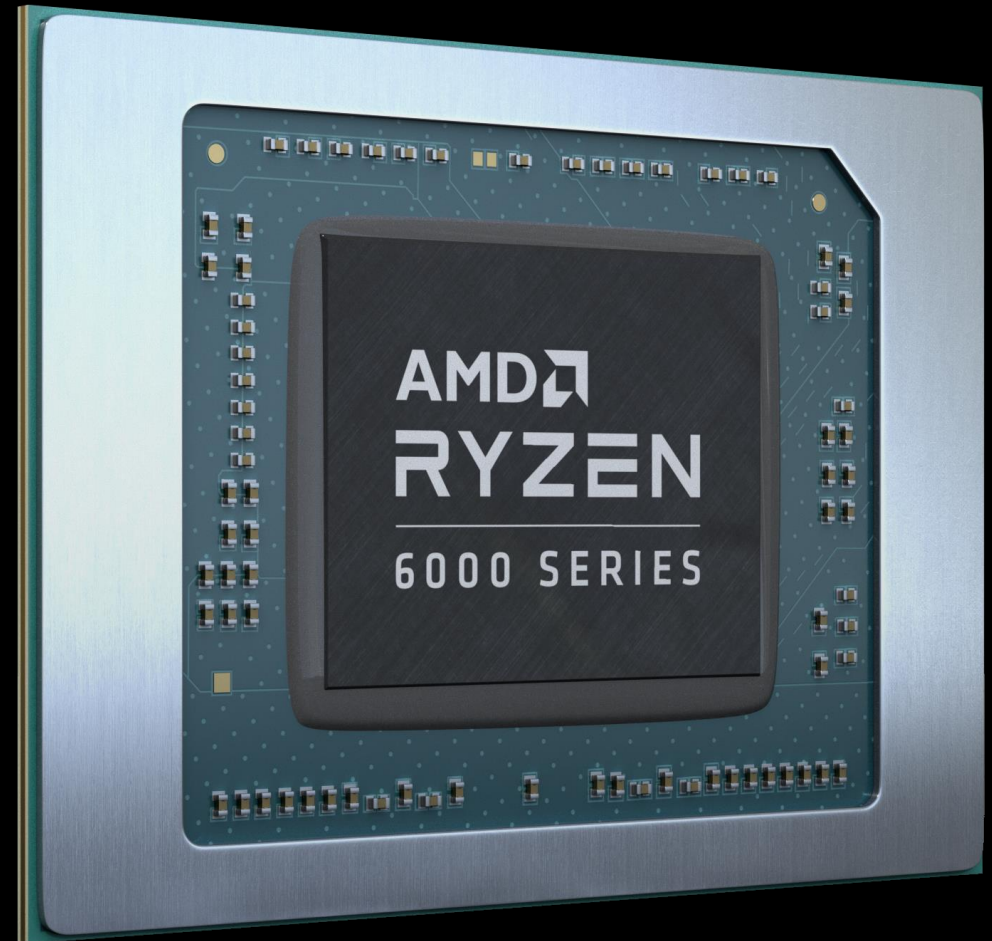




AMD Ryzen™ 6000 Series Processors
With Radeon™ Graphics





Speed. Endurance. Infinite Possibilities.

AMD Ryzen™ 6000 Series processors bring new experiences to life in notebooks with exceptional speed, thin-and-light style, and incredible battery life.

The next generation of premium laptops powered by AMD Ryzen™ processors are for the doers, creators, and gamers – delivering everything customers need and so much more.

AMD Ryzen™ 6000 Series Processors

Delivering more speed, all-new graphics, and incredible battery life.

AMD
RYZEN
6000 SERIES

EXPERIENCE PURE SPEED

Elevate work, creativity, and entertainment experiences with up to 30% faster ultrathin performance than last gen¹.



ALL DAY BATTERY

Up to 24 hours battery life on select ultrathin systems² thanks to advanced smart power technology.

AMD
RDNA 2

WORLD'S MOST POWERFUL BUILT-IN GRAPHICS³

Now with the power of AMD RDNA™ 2 graphics technology built-in, play pretty much any game at 1080p with smooth performance⁴.



FUTURE READY PLATFORM

A new platform with next-gen technology like PCIe® 4.0, DDR5 and USB4™⁵, so your customers can have the best experiences.

Breakthrough **Ultrathin** Performance

AMD is raising the performance bar for ultrathin and light laptops with a higher power envelope and better than ever built-in graphics.



UP TO **28W**

NEW MAX TDP FOR U-SERIES

AMD Ryzen™ 6000 U-Series processors now scale up to 28W, to get the full performance possible in an ultrathin laptop. Users will get leaps in performance, while enjoying the same long battery life, thanks to new “Zen 3+” power management advancements¹.



AMD RDNA™ 2 GRAPHICS

FOR THE FIRST TIME IN A NOTEBOOK PROCESSOR

AMD RDNA™ 2 graphics technology is coming to AMD Ryzen™ processors for the first time, delivering a massive leap for graphics performance. Now customers can play with up to 2X faster graphics than previous gen² and enjoy 1080p AAA games on ultrathins³.

Experience **Pure Speed**

Whether working, creating, or gaming, customers get a whole new level of speed.



Up to **5 GHz Clock Speed** Fastest AMD Ryzen™ processor yet for mobile



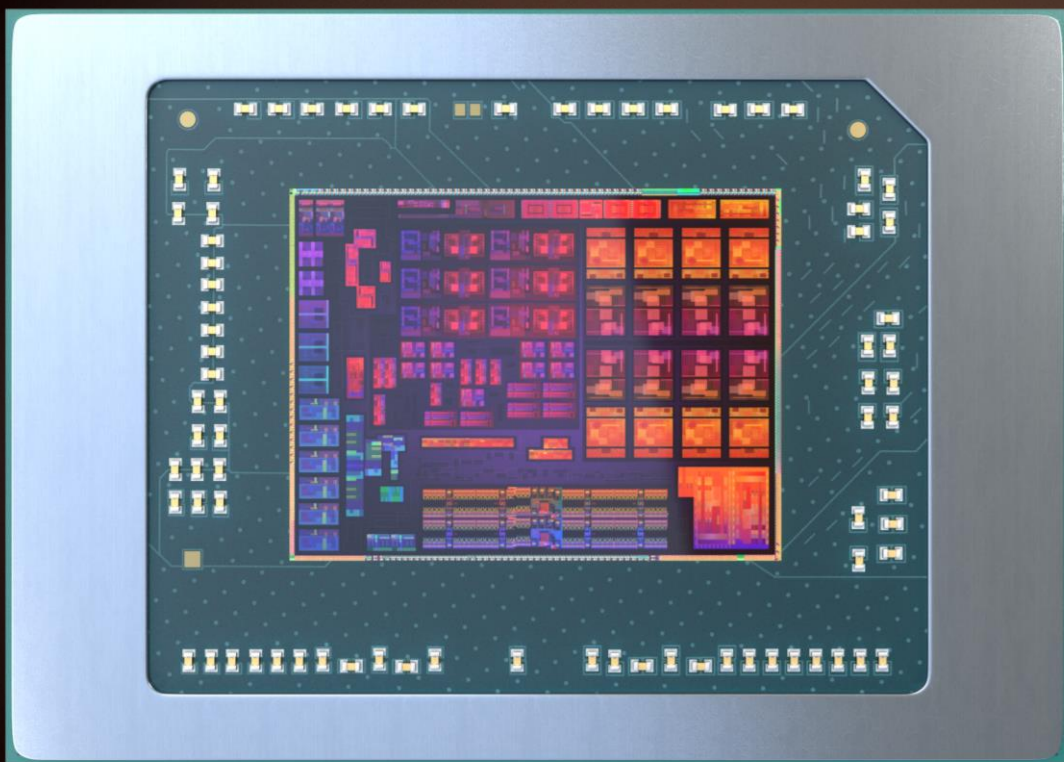
Up to **91% Faster** Video Encoding



Up to **28% Faster** Productivity



Up to **2X Faster** Gaming



“ZEN 3+”

HIGH-PERFORMANCE.
ULTRA-EFFICIENT.

Up to 8 Processor Cores

50 New and Enhanced Power Management Features

Enhanced 6nm Performance/Watt

Adaptive Power Management Framework

New Deep Sleep States

Freedom To Unplug

AMD Ryzen™ 6000 Series Processors are built with the incredibly efficient “Zen 3+” core.

The plus is all about power: new low power modes and adaptive power management can take you longer and farther on a single charge.



50 **NEW** power management features that constantly adapt to what you do on your laptop to optimize battery life



Up to
24 hours battery life on select ultrathin systems¹



Up to
40% lower power consumption when streaming Netflix²

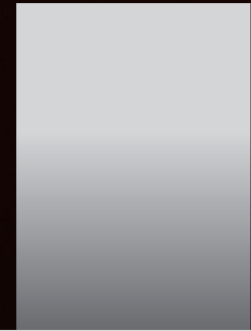
AMD RYZEN™ 6000 SERIES

A MAJOR LEAP FOR HOME & OFFICE

MULTI-THREAD PERFORMANCE

Cinebench R23 nT

UP TO
1.28X



Ryzen™ 7 5800U

Ryzen™ 7 6800U

SINGLE-THREAD PERFORMANCE

Cinebench R23 1T

UP TO
1.11X



Ryzen™ 7 5800U

Ryzen™ 7 6800U

PRODUCTIVITY PERFORMANCE

PCMark® 10 Extended

UP TO
1.28X



Ryzen™ 7 5800U

Ryzen™ 7 6800U

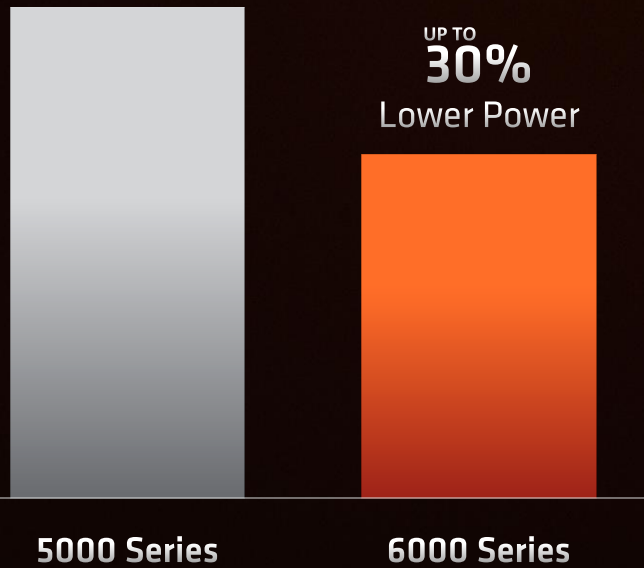
* See endnotes: RMB-16.

AMD RYZEN™ 6000 SERIES

SYSTEM POWER USAGE ACROSS KEY USE CASES

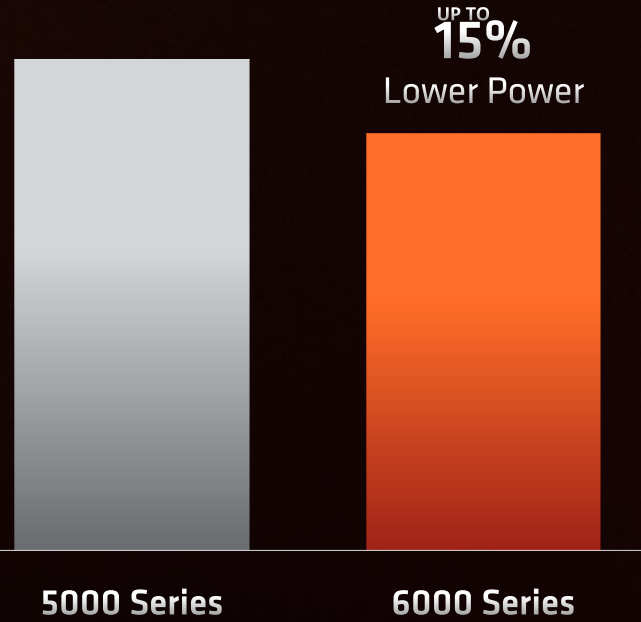
VIDEO CONFERENCING POWER CONSUMPTION

3x3 Microsoft Teams



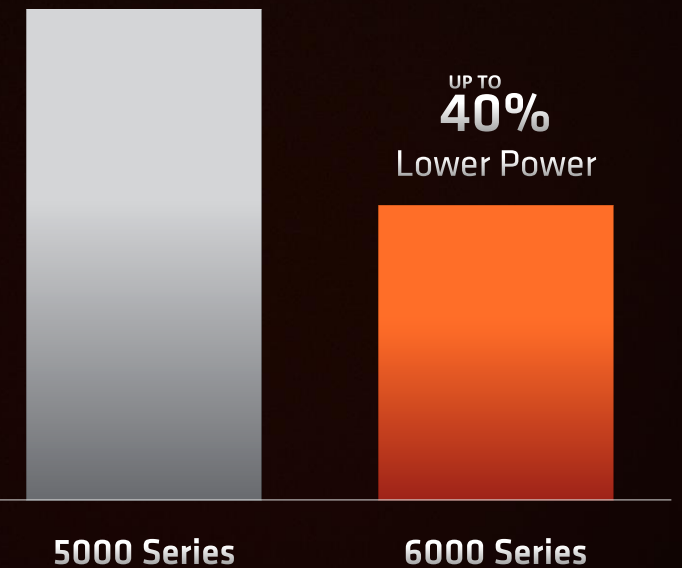
WEB BROWSING POWER CONSUMPTION

Google Chrome



VIDEO STREAMING POWER CONSUMPTION

Netflix Playback in Google Chrome



* See endnotes: RMB-17.

AMD RADEON™ 600M GRAPHICS

RDNA™ 2 ENGINE IN RYZEN™ 6000 MOBILE PROCESSORS



12 Cores, up to 2.4GHz, 4 RB+

RADEON™ 680M



6 Cores, up to 1.9GHz, 2 RB+

RADEON™ 660M

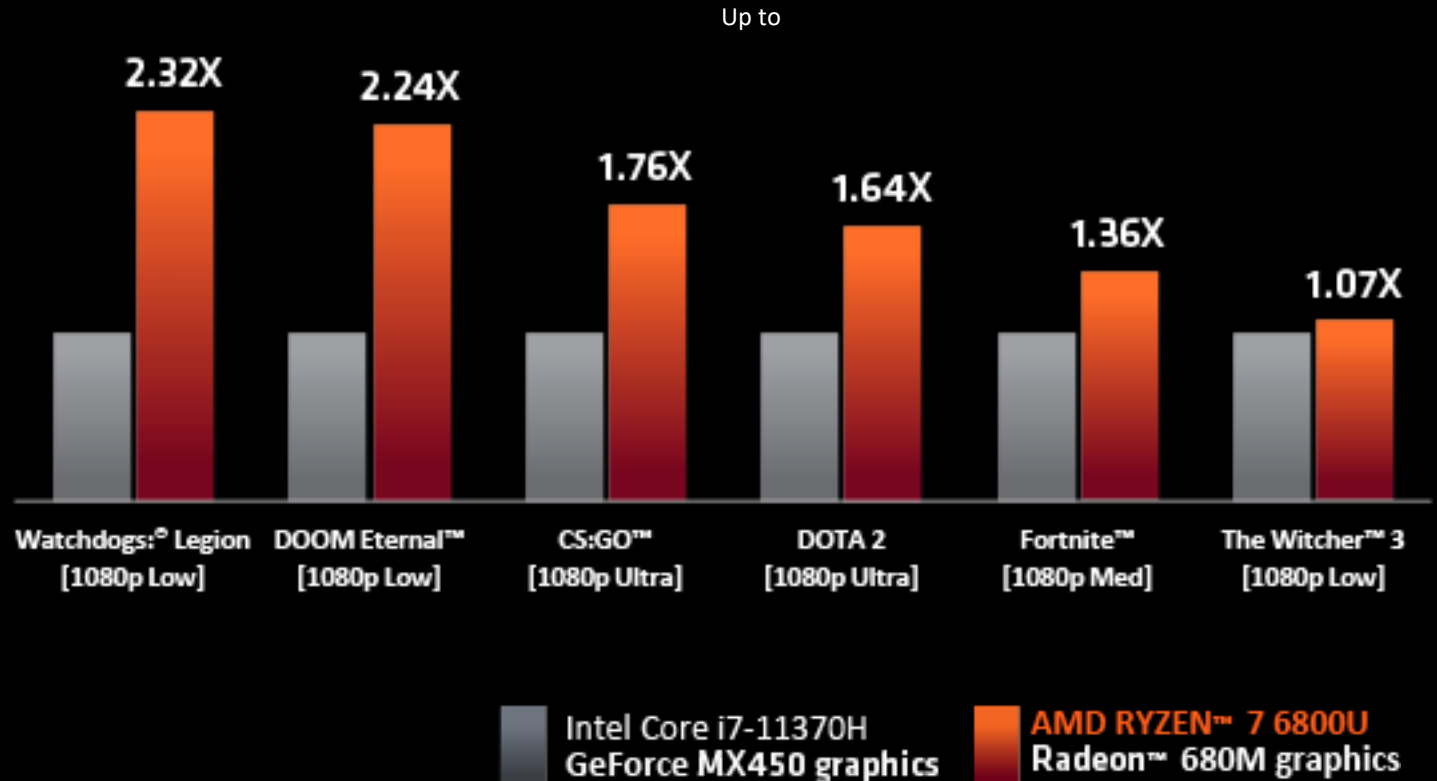
Truly Playable Gaming On the Go

Powered by AMD Radeon™ 600M Graphics

AMD RDNA 2

ULTRATHIN 1080p GAMING

Not everyone is a gamer, but with AMD Ryzen™ 6000 Series processors, everyone can be. Now with AMD RDNA™ 2 architecture built-in, even casual gamers can enjoy HD gaming on almost any title without a dedicated graphics card.





All the Latest Connectivity

AMD Ryzen™ 6000 Series processors bring the latest connectivity and speed customers need for modern laptop experiences.

NEWEST DDR5/LPDDR5 MEMORY

Advanced high-speed memory for fast graphics and compute performance

USB4

Supports the latest USB4® technology up to 40Gbps¹ for 2X the transfer speeds compared to previous gen USB 3.2

PCIe® GEN 4

PCIe® Gen 4 enables more device bandwidth for faster graphics and storage

WI-FI™ 6E

Powerful Wi-Fi™ 6E connectivity for large data bandwidth and fast response times

1. Not all systems feature all capabilities. Check with system manufacturer for specific features and functions.

Premium **Next-Gen** Features

Customers get all they need and more in laptops powered by AMD Ryzen™ 6000 Series processors.

AI-POWERED AUDIO

Advanced AI-powered noise cancellation built right on the chip to chat and listen distraction free¹

PREMIUM DISPLAYS

Supports up to four display outputs with HDR, DCI-P3, and BT.2020 color for impeccable image quality; plus support for HDMI® 2.1 and ready for DisplayPort™ 2

WINDOWS 11 SECURITY

AMD Ryzen™ 6000 Series are the first x86 processors to fully support Windows 11 security with the Microsoft Pluton™ security processor², so customers can feel confident that their PC is protected

SUMMARY: AMD Ryzen™ 6000 Series Processors

Delivering more speed, all-new graphics, incredible battery life and the future-ready technology customers need.

FASTEST AMD RYZEN™ MOBILE EVER

Up to 5Ghz max boost on select processors¹ for the first time

BREAKTHROUGH ULTRATHIN PERFORMANCE

Now up to 28W max TDP for U-Series pushes the performance bar for thin and lights

WORLD'S BEST BUILT-IN GRAPHICS²

New AMD Radeon™ 600M graphics are fast enough to play almost any game title at 1080p resolution³

INCREDIBLE BATTERY

Up to 24 hours battery life on select ultrathin systems⁴

ALL-NEW CONNECTED PLATFORM

A new platform with next-gen connectivity and features

WINDOWS 11 SECURITY FEATURES

First x86 processor to deliver the full breadth of new Windows 11 security features⁶

Endnotes

1. RMB-6 Based on testing by AMD as of 12/14/2021. Integrated graphics performance leadership represented by 3DMark Time Spy vs. last generation Ryzen™ 7 5800U and competing Intel Core i7 mobile processors. Performance may vary.
2. RMB-7 Based on testing by AMD as of 12/14/2021. The integrated graphics performance of Ryzen™ 6000 Series processors can get up to 45 FPS average in the majority of 11 tested PC game titles at 1080p resolution with low settings, a threshold no other integrated graphics processor has reached before, including Intel Iris Xe graphics, and Ryzen™ 5000 Series graphics.
3. RMB-13 Based on testing by AMD as of 12/14/2021. CPU performance evaluated with a geomean of 9 multi-threaded content creation and CPU tests. GPU performance evaluated with 3DMark® Time Spy. System configuration for Ryzen™ 7 5800U CPU/GPU performance: HP ProBook 635 Aero G8 configured with 2x8GB DDR4-3200 (22-22-22), Windows® 11 22000.282, Samsung 980 Pro 1TB SSD, 15W nominal processor TDP, GPU driver 27.20.21026, BIOS T83. System configuration for Ryzen™ 7 6800U CPU/GPU performance: AMD reference motherboard configured with 4x4GB LPDDR5-6400 (19-15-17), Windows® 11 22000.282, Samsung 980 Pro 1TB SSD, 28W nominal processor TDP, GPU driver 30.0, BIOS TRM0081D.
4. RMB-14 Based on testing by AMD as of 12/14/2021. Performance evaluated with PugetBench for Premiere Pro and Blender Benchmark (ClassRoom scene) with GPU-accelerated rendering enabled. System configuration for Ryzen™ 7 5800U: HP ProBook 635 Aero G8 configured with 2x8GB DDR4-3200 (22-22-22), Windows® 11 22000.282, Samsung 980 Pro 1TB SSD, 15W nominal processor TDP, GPU driver 27.20.21026, BIOS T83. System configuration for Ryzen™ 7 6800U: AMD reference motherboard configured with 4x4GB LPDDR5-6400 (19-15-17), Windows® 11 22000.282, Samsung 980 Pro 1TB SSD, 28W nominal processor TDP, GPU driver 30.0, BIOS TRM0081D.
5. RMB-15 Based on testing by AMD as of 12/14/2021. Battery life evaluated with hours of continuous 1080p local video playback using the h.264 video codec. Video codec acceleration (including at least the HEVC (H.265), H.264, VP9, and AV1 codecs) is subject to and not operable without inclusion/installation of compatible media players. System configuration: AMD reference motherboard(s), Ryzen™ 7 5800U @ 15W and 2x8GB LPDDR4, Ryzen™ 7 6800U @ 28W and 2x8GB LPDDR5, 1080p eDP PSR display with Varibright at 150 nits, Samsung 980 Pro 1TB SSD, WLAN enabled and disconnected, Windows 11 22000.282, BIOS 103BRC1 (5800U) and 090RC6INT (6800U). Video file: 1920x1080, 23.976 FPS, h.264.
6. RMB-16 Based on testing by AMD as of 12/14/2021. CPU performance evaluated Cinebench R23 1T, Cinebench R23 nT, and PCMark® 10 Extended. System configuration for Ryzen™ 7 5800U CPU/GPU performance: HP ProBook 635 Aero G8 configured with 2x8GB DDR4-3200 (22-22-22), Windows® 11 22000.282, Samsung 980 Pro 1TB SSD, 15W nominal processor TDP, GPU driver 27.20.21026, BIOS T83. System configuration for Ryzen™ 7 6800U CPU/GPU performance: AMD reference motherboard configured with 4x4GB LPDDR5-6400 (19-15-17), Windows® 11 22000.282, Samsung 980 Pro 1TB SSD, 28W nominal processor TDP, GPU driver 30.0, BIOS TRM0081D. PCMARK is a registered trademark of Futuremark Corporation.
7. RMB-17 Based on testing by AMD as of 12/14/2021 using AMD internal power sampling and logging methodologies to capture total system power (TSP) and overall battery life in Microsoft Teams 3x3 teleconferencing, Google Chrome web browsing, and Netflix streaming video playback. System configuration: AMD reference motherboard(s), Ryzen™ 7 5800U @ 15W and 2x8GB LPDDR4, Ryzen™ 7 6800U @ 28W and 2x8GB LPDDR5, 1080p eDP PSR display with Varibright at 150 nits, Samsung 980 Pro 1TB SSD, WLAN enabled and disconnected, Windows 11 22000.282, BIOS 103BRC1 (5800U) and 090RC6INT (6800U).
8. RMB-19 Based on testing by AMD as of 12/14/2021. Performance evaluated with DOOM Eternal (low image quality), CS:GO (ultra image quality), Fortnite (medium image quality + DX11), Watch Dogs: Legion (low image quality), The Witcher 3 (low image quality), and DOTA 2 (ultra image quality + Vulkan). All games tested at 1920x1080 resolution. System configuration for Ryzen™ 7 6800U: AMD reference motherboard configured with 4x4GB LPDDR5-6400 (19-15-17), Windows® 11 22000.282, Samsung 980 Pro 1TB SSD, 28W nominal processor TDP, GPU driver 30.0, BIOS TRM0081D. System configuration for GeForce MX450: Dell Inspiron 13 1510 configured with 2x8GB LPDDR4-4667, Core i7-11370H, GeForce MX450 on driver 496.49, Windows 11 22000.282.
9. RMB-23: Based on testing by AMD as of 12/14/2021. CPU performance evaluated with a geomean of 9 multi-threaded content creation and CPU tests. GPU performance evaluated with 3DMark® Time Spy. Battery life evaluated with hours of continuous 1080p local video playback using the h.264 video codec. System configuration for Ryzen™ 7 5800U CPU/GPU performance: HP ProBook 635 Aero G8 configured with 2x8GB DDR4-3200 (22-22-22), Windows® 11 22000.282, Samsung 980 Pro 1TB SSD, 15W nominal processor TDP, GPU driver 27.20.21026, BIOS T83. System configuration for Ryzen™ 7 6800U CPU/GPU performance: AMD reference motherboard configured with 4x4GB LPDDR5-6400 (19-15-17), Windows® 11 22000.282, Samsung 980 Pro 1TB SSD, 28W nominal processor TDP, GPU driver 30.0, BIOS TRM0081D. System configuration for battery life duration: AMD reference motherboard(s), Ryzen™ 7 5800U @ 15W and 2x8GB LPDDR4, Ryzen™ 7 6800U @ 28W and 2x8GB LPDDR5, 1080p eDP PSR display with Varibright at 150 nits, Samsung 980 Pro 1TB SSD, WLAN enabled and disconnected, Windows 11 22000.282, BIOS 103BRC1 (5800U) and 090RC6INT (6800U). Video file: 1920x1080, 23.976 FPS, h.264
10. RMB-24 As of January 2022, only AMD Ryzen™ 6000 Series processors include the Microsoft Pluton security processor, while AMD Ryzen™ 5000 Series processors and Intel's latest 11th and 12th Gen processors do not
11. GD-150 Max boost for an AMD Ryzen processor 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