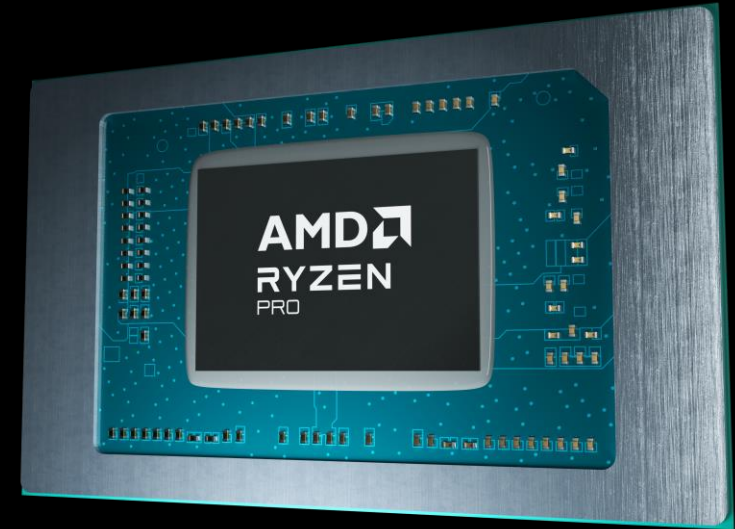




AMD RYZEN™ PRO PROCESSORS AND WINDOWS 11 PRO

BETTER TOGETHER FOR
ENTERPRISE



SETTING THE NEW STANDARD FOR BUSINESS PC EXPERIENCES

Advanced User Experiences

Intuitive experiences to empower exceptional work anywhere, leadership performance, power efficiency, and immersive workflows

Powerful Security

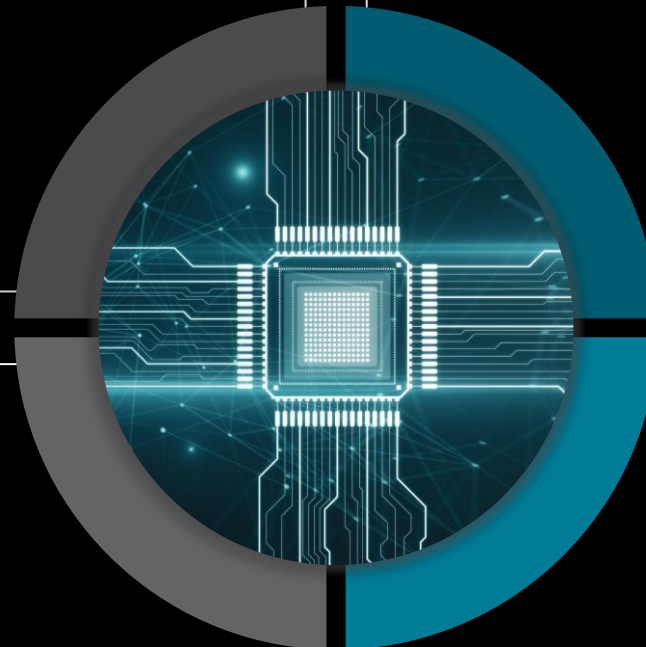
Elevate your company's PC security with cutting-edge solutions

Easy IT Management

Enabling simple and streamlined PC management and seamless deployment. Geared for compatibility and future expansion to foster business growth

Devices For Business Transformation

Unleash your business potential with powerfully advanced AI PCs



ADVANCED PERFORMANCE

FOR increased productivity



AMD Ryzen™ PRO Processors



Up to 23% faster multi-core performance compared to Apple M2 processors*
And up to 16% better than 13th Generation Intel processors



Are designed for the best responsiveness -- thanks to system optimization and latest power management architectures



Offer stunning visualization, encoding, and support for the latest hi-res displays with the world's fastest integrated graphics



WINDOWS 11 PRO DEVICES



Can accelerate workflows and collaboration by up to 50%¹



Feature deep hardware and software integration, which increases malware resistance without sacrificing performance



Complete demanding workloads, like 3D rendering, up to 42% faster on average compared to Windows 10*

*When running the PCMark 10 Productivity Test Group benchmark
Claim code - PHXP-27 and PHXP-28

BEST-IN-CLASS PRODUCTIVITY AND VIRTUAL COLLABORATION

With 8 high-performance cores, the AMD Ryzen™ 7 PRO 7840U processor accelerates performance using MS Office apps while running Teams Video Conference.

UP TO

83%

Faster
Productivity

UP TO

15%

Less
Power

UP TO

29%

Better
performance/
Watt



Teams Video Conference

+



Compared to Intel Core i7 1370P and Qualcomm SQ3 processor

See endnote PHXP-24 and PHXP-38

TODAY'S WORK ANYWHERE, HYBRID WORKFORCE

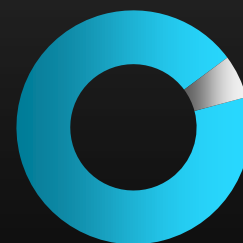
64%



at least sometimes **work somewhere other than their typical workspace**

(Asked among those who are employed; n=382)

94%



the ability to be **“on the go”** is important

(Asked among those who use a laptop on a regular basis; n=657)

3+ HOURS



Average User Spends On **Battery In A Day**

(Asked among those who use a laptop on a regular basis; n=657)

Microsoft Teams battery life (System VS. System)

EXCEPTIONALLY LONG BATTERY LIFE – FOR UNPLUGGED PRODUCTIVITY VIRTUALLY ANYWHERE



Intel Core i7-1370P

Intel Core i7-1365U

Apple M2 Pro (10 core)

AMD Ryzen 7 PRO 7840U

Total Run Time

4:00

Battery Size: 54 Wh

Baseline

4:18

Battery Size: 54 Wh

UP TO +8%

6:13

Battery Size: 69.6 Wh

UP TO +55%

6:48

Battery Size: 51.3Wh

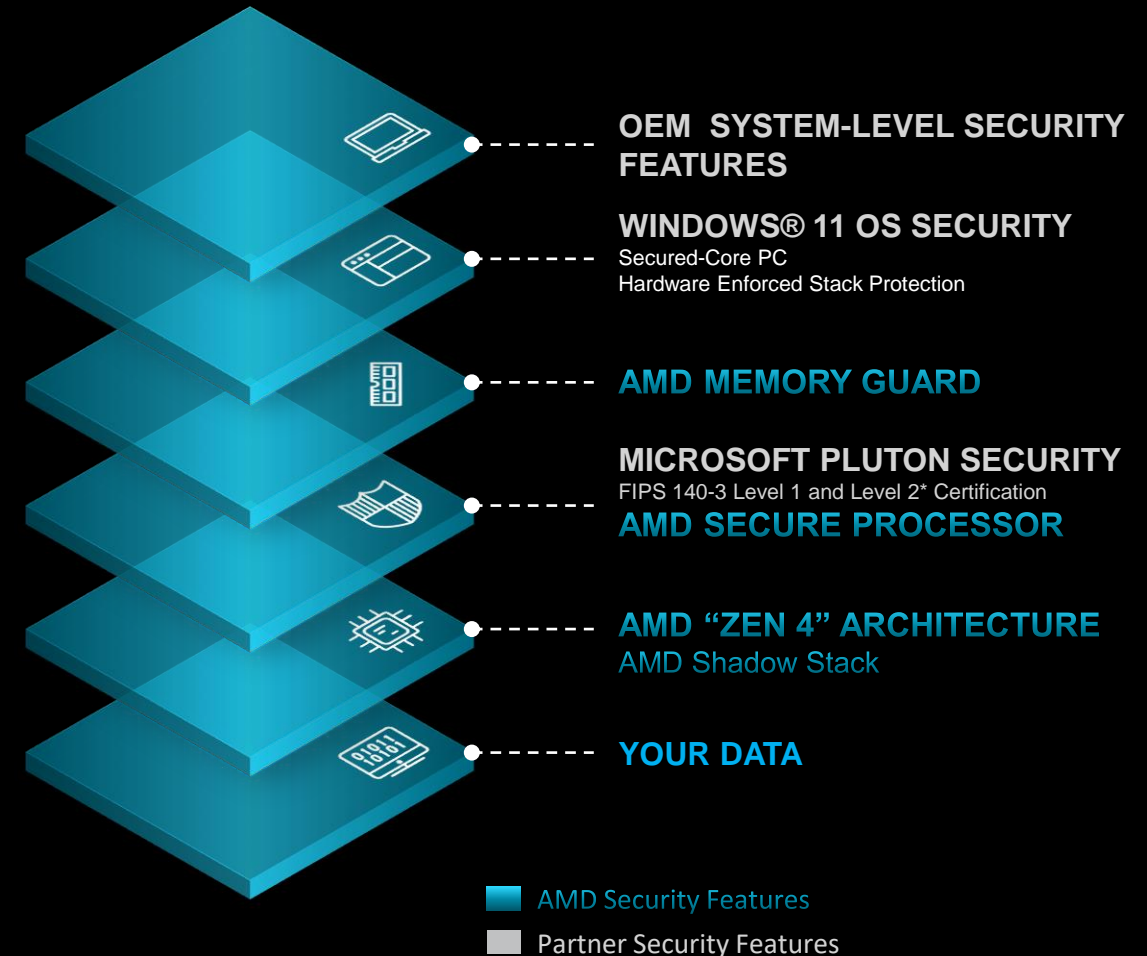
UP TO +70%

ADVANCED USER EXPERIENCES – POWERFUL SECURITY

AMD RYZEN™ PRO PROCESSORS AND WINDOWS 11 PROVIDE MULTILAYERED SET OF SECURITY AT THE HARDWARE, OS, AND SYSTEM LEVEL

AMD RYZEN™ PRO 7040 SERIES DELIVERING MULTI-LAYERED SECURITY

- Windows 11 PCs powered by Ryzen™ PRO 7040 Series processors come with integrated **Microsoft Pluton security** delivering chip-to-cloud protection
- **AMD Memory Guard** helps protect company's sensitive business data when an employee's PC is lost or stolen
- AMD offers outstanding security to **enable critical security solutions** from OS providers and OEMs



See endnote GD-206, GD-72 *FIPS 140-3 Level 2 certification under test.

Microsoft Pluton Product availability varies by device and market

EASY IT MANAGEMENT

WINDOWS 11 PRO AND AMD ENABLE SIMPLE AND STREAMLINED MANAGEMENT AND DEPLOYMENT

AMD Ryzen™ PRO and Windows 11

AMD PRO Manageability delivers a robust manageability solution set that simplifies deployment, imaging and management of an ever-growing and changing fleet



**FAST, FLEXIBLE & EASY
MANAGEMENT**



**APP
COMPATIBILITY ⁶**



**ZERO TOUCH
DEPLOYMENT ⁷**

BUSINESS TRANSFORMATION

Advance Your PC Experience

Groundbreaking AI technology
built in select Windows
laptops to accelerate hybrid AI
user experiences

Only with

AMD
RYZEN AI



GET READY TO EXPLORE A NEW WORLD OF POSSIBILITIES WITH FUTURE WINDOWS APPLICATIONS



ACCELERATE DATA ANALYTICS

Work efficiently on data analysis, regression, and predictive modeling with your local data



EXCEL IN COMPUTER VISION

Accelerate computation for object detection, image classification, and facial recognition



CREATE WITH AI INSPIRED VISUALS

Turn your concept into a work of art



HAVE A PERSONAL AI ASSISTANT

Get help with your monthly budgeting, writing email responses, your daily schedule and more



EXPERIENCE AI ENHANCED VISUALS AND GAMEPLAY

AI-generated graphics for more lifelike gameplay

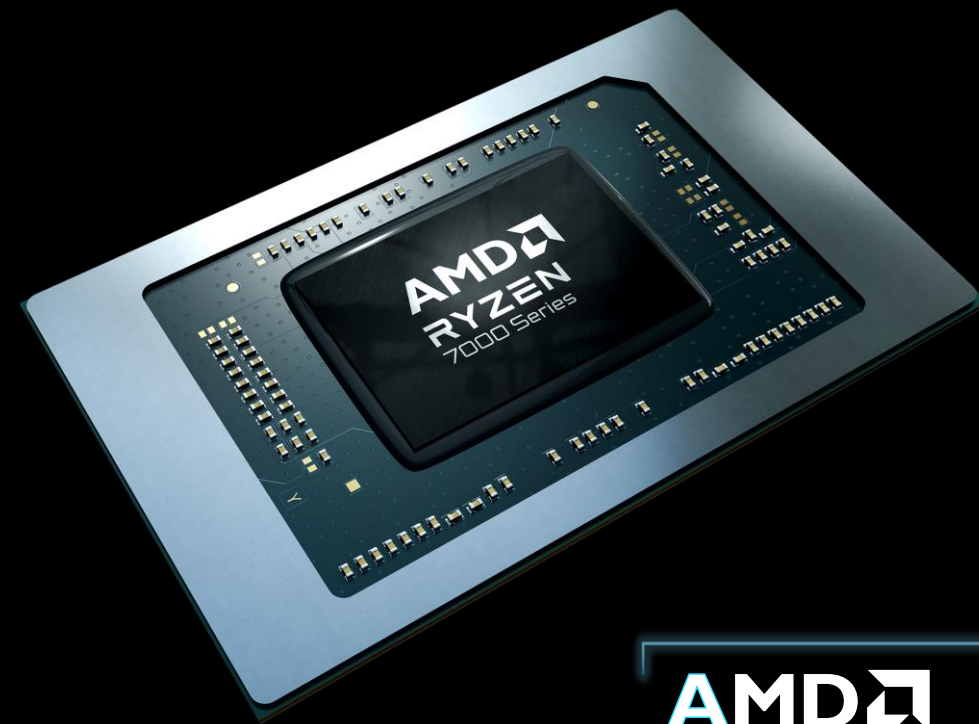


GET MORE TIME BACK IN YOUR DAY

Quickly scan your hundreds of photos and organize them for your family or friends' photobook

AMD Ryzen™ AI
includes the
**first dedicated AI
engine** available in major
Windows OEM systems

More than 100 AMD Ryzen™ systems
expected to be in market by end of year with
Ryzen™ AI built in



AMD
RYZEN AI

ASUS



acer



Lenovo

Select AMD Ryzen 7040 series processors with dedicated AI hardware onboard have the world's first dedicated AI Engine on an x86 PC processor*.

* As of May 2023, AMD Ryzen AI was the first available dedicated AI engine on an x86 Windows 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>. PHX-3. See endnote GD-220

AMD
together we advance_

Unlocking the Power of AI

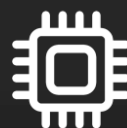
DEDICATED AI HARDWARE ON ENDPOINT SYSTEMS ENABLE A NEW ERA FOR PCS



Explosion of Generative AI

- Bing > 100M users since AI launch
- Microsoft use cases expanding rapidly

This is just the Beginning !!



Enhanced Experiences

- Client = Personalized, Fast
- Reliable and Protected

“Generate insights from PPT that John forwarded me last week”



From Cloud to Hybrid

- Cloud inferencing is costly for Gen-AI
- ISVs need Client AI for Gen-AI features

Client AI makes Gen-AI features affordable

BUSINESS TRANSFORMATION

WITH ADVANCED VIDEO COLLABORATION

Windows Studio Effects uses AMD Ryzen™ AI using the integrated camera



**ENHANCED
BACKGROUND BLURS**

to help limit distractions while you are on a video call

AUTO FRAMING

so the camera follows you while you are multitasking on a video call

**EYE GAZE
CORRECTION**

so that your audience knows you are focused on them



New Windows Innovation in AI

WINDOWS COPILOT

Your new AI personal assistant for Windows 11 available in preview

Get things done faster

with windows copilot always available on your taskbar

Customize your settings

for fun and efficiency, including focus sessions, music, and more

Master multi-tasking

by asking Windows Copilot to summarize, re-write, or explain content across apps – and much more

Available with Bing Chat Enterprise in future,

bringing you generative AI combined with commercial data protection



Upgrade to new AMD Ryzen™ PRO featuring Ryzen AI and Windows 11 Pro Devices

With 90% of Fortune 500 companies already using Windows 11 Pro+,
AMD POWERS THE WORLD'S MOST ADVANCED BUSINESS PCs



HP EliteBook 805 Series



HP ZBook Firefly G10



HP ZBook Power G10



Lenovo ThinkPad Z Series



Lenovo ThinkBook P Series



Lenovo ThinkBook T Series

AMD 

MICROSOFT REFERENCES & DISCLAIMERS

Referenced Sources

- A Windows 11 Survey Report. Techaisle, February 2022.
- B The Total Economic Impact™ of Windows 11 Pro Devices. Forrester Consulting. (2022, December).
<https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE4Vrvx>
Note: Quantified benefits reflect results over three years combined into a single composite organization that generates \$1 billion in annual revenue, has 2,000 employees, refreshes hardware on a four-year cycle, and migrates the entirety of its workforce to Windows 11 devices.
- C Improve your day-to-day experience with Windows 11 Pro laptops, Principled Technologies. (20223, February).
- D Will AI fix work?. Work Trend Index. (2023, May 9).
<https://www.microsoft.com/en-us/worklab/work-trend-index/will-ai-fix-work>
- E Earnings Release FY23 Q3 Press Release & Webcast. Microsoft. (2023, April 25). <https://www.microsoft.com/en-us/investor/earnings/FY-2023-Q3/press-release-webcast>
- F Microsoft Digital Defense Report 2022. Microsoft Security. (2022).
<https://www.microsoft.com/en-us/security/business/microsoft-digital-defense-report-2022>

Microsoft Disclaimers

- 1 Windows 11 results are in comparison with Windows 10 devices.
- 2 AI neural processing unit (NPU) camera effects. Hardware dependent. Experience may vary based on application. An NPU is a specialized processor designed to optimize AI capabilities. NPU will be available on select devices; check device specifications or ask your OEM for information.
- 3 Battery life varies based on settings, usage, device, and other factors.
- 4 Hardware dependent.
- 5 Developer enablement required.
- 6 App Assure program data.
- 7 Azure Active Directory and Microsoft Intune required. Sold separately.
- 8 Windows Copilot available at a later date.

Endnotes

The AMD Secure Processor is a dedicated on-chip security processor integrated within each system-on-a-chip (SoC) and ASIC (Application Specific Integrated Circuit) designed by AMD. It enables secure boot with root of trust anchored in hardware, initializes the SoC through a secure boot flow, and establishes an isolated Trusted Execution Environment. GD-72.

Microsoft Pluton is a technology owned by Microsoft and licensed to AMD. Microsoft Pluton is a registered trademark of Microsoft Corporation in the United States and/or other countries. Learn more at <https://www.microsoft.com/security/blog/2020/11/17/meet-the-microsoft-pluton-processor-the-security-chip-designed-for-the-future-of-windows-pcs/>. Microsoft Pluton security processor requires OEM enablement. Check with the OEM before purchase. AMD has not verified the third-party claim. GD-202

RYZEN 7000 SERIES PRO mobile: Based on a smaller node size of the AMD processor for a business-class x86 platform, as of January 2022. GD-203.

Full system memory encryption with AMD Memory Guard is included in AMD Ryzen™ PRO, AMD Ryzen™ Threadripper PRO, and AMD Athlon™ PRO processors. PP-3. Full system memory encryption with AMD Memory Guard is included in AMD Ryzen PRO, AMD Ryzen Threadripper PRO, and AMD Athlon PRO processors. Requires OEM enablement. Check with the system manufacturer prior to purchase. GD-206.

Ryzen™ AI technology is compatible with all AMD Ryzen™ 7040 series processors except the Ryzen 5 7540U and Ryzen 3 7440U. OEM enablement is required. Please check with your system manufacturer for feature availability prior to purchase. GD-220

Testing as of 11/1/2022 by AMD Performance Labs utilizing MacBook Pro with Apple M2 processor, with Apple M2, 16GB LPDDR5 RAM, Apple SSD AP0512Z (500.28 GB), and macOS 12.5.1 vs. a Dell Latitude 7430 with Intel Core i7-1265U, Intel Iris Xe Graphics, 16GB RAM, 1TB Storage Drive and Microsoft Windows 11 Pro and a Lenovo Thinkpad Z13 Gen 1 with Ryzen 7 PRO 6850U processor, AMD Radeon 600M series graphics, 32GB RAM, Storage Drive (512 GB), Microsoft Windows 11 Pro, using the following benchmark tests: Cinebench R23 1-thread, Cinebench R23 n-thread, and Passmark 10 CPU Mark. The composite geometric mean score is an average which indicates the typical value of the benchmark results. PC manufacturers may vary configurations yielding different results. Results may vary. RMP-133

Based on testing by AMD as of 2/13/23. Battery life results evaluated by operation of a nine-participant Microsoft Teams video conference on battery and using the native Teams Application for each systems operating system. AMD systems run from power level 90% > 45% @150nits brightness and power mode set to "power efficiency." Apple system run from power level 100 > 0 @150nits brightness, and battery mode is set to "Low Power Mode.". System configuration for Apple M2 Pro 10 core: Apple MacBook Pro 14,integrated graphics, 16 GBytes RAM, 512GB NVMe SSD,MacOS 13.2 and 69.6Wh battery. System configuration for Ryzen™ 7 7736U: HP Dragonfly Pro, AMD Radeon Graphics, 16GB RAM, 512GB NVMe SSD, Windows 11 Pro and 65Wh battery. Both systems have been "normalized" to reflect the same 69.6Wh battery size. Battery life may vary based on a variety of factors. RMBR-12

As of May 2023, AMD has the first and only available dedicated AI engine on an x86 Windows 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>. PHX-3.

Based on testing by AMD as of 12/23/2022. Testing results demonstrated in Borderlands 3, Cyberpunk 2077, Rainbow Six Siege, Assassin's Creed: Valhalla, World of Tanks Encore, League of Legends, Far Cry 6, Grand Theft Auto V, Shadow of the Tomb Raider, F1 2021, Strange Brigade, Total War: Three Kingdoms Battle. Ryzen™ 9 7940HS system: AMD reference motherboard configured with 4x4GB LPDDR5, Samsung 980 Pro 1TB SSD, Radeon 780M Graphics, Windows® 11 64-bit. Core i7-1280P system: HP EliteBook 840 G9 configured with 16GB DDR5-4800, 1TB SSD, Intel Iris Xe, Windows 11 64-bit. System manufacturers may vary configurations, yielding different results. PHX-9

Endnotes

Testing as of 6/2/23 by AMD internal performance lab. System configuration for AMD Ryzen PRO 7840U: Lenovo ThinkPad T14s Gen 4, 32GB RAM, 2TB NVMe SSD, Integrated Radeon graphics, Windows 11 Pro running in Power Efficiency mode. System configuration for Intel Core i7 1370P: Dell Latitude 5440, 16GB RAM, 512GB NVMe SSD, intel integrated graphics, Windows 11 Pro running in Power Efficiency mode using the following tests: Teams + Procyon Overall, Teams + Procyon Word, Teams + Procyon Excel, Teams + Procyon PowerPoint, and Microsoft Teams + Procyon Wallpower consumed (watts). Each Microsoft Teams call consists of 9 participants (3X3) while running each individual benchmark. Laptop manufacturers may vary configurations yielding different results. PHXP-24

Based on internal testing by AMD as of 6/3/23. Battery life results evaluated by operation of a nine-participant Microsoft Teams video conference on battery power. System configuration for AMD system run from power level 90% > 45% @150nits brightness and power mode set to "power efficiency." Apple system run from power level 100 > 0 @150nits brightness, and battery mode set to "Low Power Mode." System configuration for Apple M2 Pro 10 core: Apple MacBook Pro 14, integrated graphics, 16 GB RAM, 512GB NVMe SSD, MacOS 13.2 and 69.6Wh battery. System configuration for Ryzen 7 7840U: HP EliteBook 845 G10, AMD Radeon Graphics, 16GB RAM, 1TB NVMe SSD, Windows 11 Pro and 51.3Wh battery. Battery life results will vary based on a variety of factors. System manufacturers may vary configurations, yielding different results. PHXP-29

Based on internal testing by AMD as of 6/3/23. Battery life results evaluated by operation of a nine-participant Microsoft Teams video conference on battery. System configuration for AMD and Intel systems run from power level 100% > 5% @150nits brightness and power mode set to "power efficiency." Apple system run from power level 100 > 0 @150nits brightness, and battery mode is set to "Low Power Mode." System configuration for Apple M2 Pro 10 core: Apple MacBook Pro 14, integrated graphics, 16 GBytes RAM, 512GB NVMe SSD, MacOS 13.2 and 69.6Wh battery. System configuration for Ryzen 7 7840U: HP EliteBook 845 G10, AMD Radeon Graphics, 16GB RAM, 1TB NVMe SSD, Windows 11 Pro and 51.3Wh battery. System config for Intel Core i7-1365U: Dell Latitude 5440, 16GB RAM and 1TB NVMe SSD, Intel integrated Graphics, Windows 11 Pro and 54 Wh battery. System config for Intel Core i7-1370P, Dell Latitude 5440, 16GB RAM and 1TB NVMe SSD, Intel integrated Graphics, Windows 11 Pro and 54 Wh battery. Actual battery life will vary depending on a variety of factors. Laptop manufacturers may vary configurations, yielding different results. PHXP-32

'Most Modern Security' is defined as AMD CPUs with Microsoft Secured-core PC - Modern Security technology enabled by the system manufacturer. Check with your system manufacturer prior to purchase. PHXP-35

Testing as of 6/23/23, by AMD Performance Labs using the following benchmark tests: Procyon Overall, Procyon Word, Procyon Excel, Procyon PowerPoint, each while running a simulated 9-person (3:3) Microsoft Teams video conference call with utilizing system configuration for AMD Ryzen 7 7840U @15W TDP: MAYAN FP7-101DRC3INT-230331 (CRB), 16GB RAM, 1TB NVMe SSD, Integrated Radeon Graphics, Windows 11 Pro running in "high-performance mode," with Advanced Background Blur, eye gaze detection (using a mannequin to simulate the feature) and auto framing enabled via Ryzen AI. System configuration for Qualcomm SQ3 processor: Microsoft Surface Pro 9, 16GB RAM, 512GB NVMe SSD, Qualcomm integrated graphics, Windows 11 Pro running in "best performance mode," and Advanced Background Blur, eye gaze detection (using a mannequin to simulate the feature) and auto framing enabled via Qualcomm integrated NPU (Neural Processing Unit). System configurations may vary yielding different results. PHXP-38

Testing as of 5/31/23 by BOXX Technologies, commissioned by AMD, utilizing Dell Latitude 5440 with Intel Core i7 1355U processor, with Intel Integrated graphics, 16GB RAM 512GB NVMe SSD and Windows 11 Pro, Dell Latitude 5440 with Intel Core i7 1370P processor, Intel Integrated graphics, 16GB RAM, 256GB NVMe SSD and Windows 11 Pro, Dell XPS 13+ with Intel Core i7 1360P processor, Intel Integrated graphics, 16GB RAM, 512GB NVMe SSD and Windows 11 Pro, Dell Latitude 5440 with Intel Core i7 1365U processor, Intel Integrated graphics, 16GB RAM, 512GB NVMe SSD, Windows 11 Pro, HP EliteBook 845 G10 with Ryzen PRO R7-7840UU processor, Integrated Radeon Graphics, 16GB RAM 1TB NVMe SSD, Windows 11 Pro. Using the following tests: Geekbench v5 Single core, Passmark 11 CPU Mark, and PCMark 10 benchmark. PC manufacturers may vary configurations yielding different results. Results may vary . PCMark® is a registered trademark of Futuremark Corporation. **PHXP-27**

Testing as of 5/31/23 by BOXX Technologies, commissioned by AMD, utilizing Dell Latitude 5440 with Intel Core i7 1355U processor, with Intel Integrated graphics, 16GB RAM 512GB NVMe SSD and Windows 11 Pro, Dell Latitude 5440 with Intel Core i7 1370P processor, Intel Integrated graphics, 16GB RAM, 256GB NVMe SSD and Windows 11 Pro, Dell XPS 13+ with Intel Core i7 1360P processor, Intel Integrated graphics, 16GB RAM, 512GB NVMe SSD and Windows 11 Pro, Dell Latitude 5440 with Intel Core i7 1365U processor, Intel Integrated graphics, 16GB RAM, 512GB NVMe SSD, Windows 11 Pro, HP EliteBook 845 G10 with Ryzen PRO R7-7840UU processor, Integrated Radeon Graphics, 16GB RAM 1TB NVMe SSD, Windows 11 Pro. Using the following tests: Geekbench v5 Single Core, Passmark 11 CPU Mark and PCMark 10 Benchmark. PC manufacturers may vary configurations yielding different results. Results may vary . PCMark® is a registered trademark of Futuremark Corporation. **PHXP-28**

Disclaimer

DISCLAIMER

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AMD 