

# AMD RYZEN™ PRO 7040 SERIES PROCESSOR

## FOR BUSINESS LAPTOPS

### POWERING SOME OF THE BEST BUSINESS PCs IN THE WORLD

The world's most advanced processors with unparalleled power efficiency for premium business laptops, with a new revolutionary AI engine providing premium AI collaboration experiences with unmatched battery life advantages, speed, and near-silent operation.



**ZEN 4**

World's Fastest and Most Advanced Business Processor<sup>1,3</sup>



**4nm**

Incredible power efficiency for business laptop processors



**AMD RDNA3**

World's most powerful integrated graphics<sup>1</sup>



**AMD Ryzen™ AI**

World's first integrated AI engine in an x86 processor<sup>2</sup>

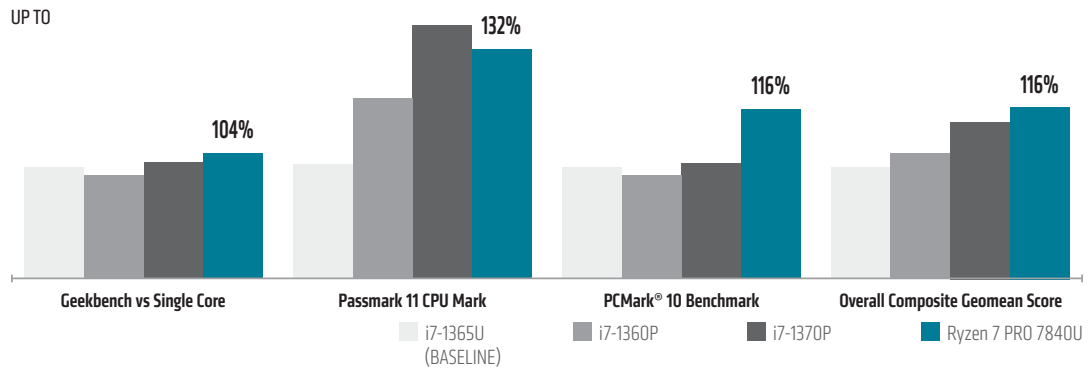
DESIGNED FOR UNCOMPROMISING INNOVATION, SPEED, AND POWER

### LEADERSHIP PERFORMANCE VS INTEL 13<sup>TH</sup> GEN

#### Faster Performance in Premium Business Laptops<sup>4,5</sup>

- ✓ Superior "Zen 4" architecture
- ✓ 8 high performance cores
- ✓ "U Series" provides performance and power efficiency for T&L systems
- ✓ Competes against higher power "P Series"

#### PROCESSOR AND SYSTEM PERFORMANCE



### BEST-IN-CLASS PRODUCTIVITY AND VIRTUAL COLLABORATION



#### Accelerate Performance using MS Office Apps while Running Teams<sup>6</sup>



Teams Video Conference



MS Office Apps

UP TO

**12% FASTER**  
**15% LESS POWER**  
**29% BETTER PERF/WATT**  
 (AMD Ryzen PRO 7840U compared to Intel Core i7 1370P)



#### Teams Battery Life Comparison<sup>7,12</sup>



Teams Video Conference

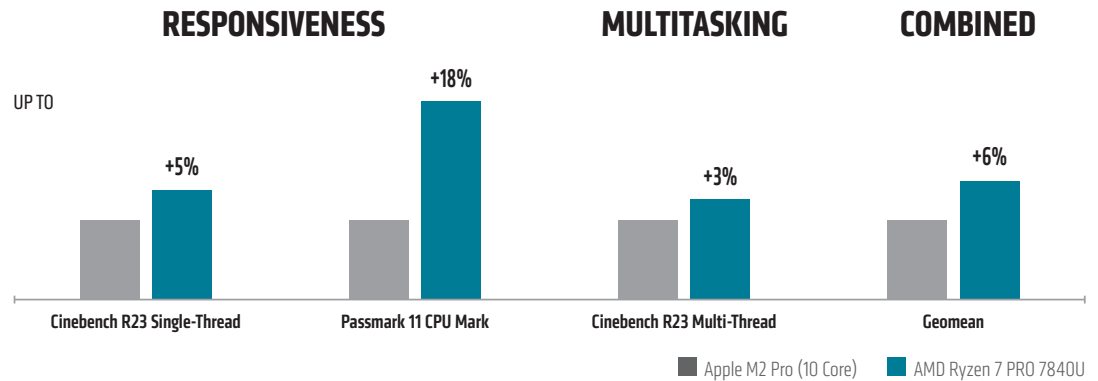
UP TO

**70% LONGER BATTERY LIFE**  
 (AMD Ryzen PRO 7840U compared to Intel Core i7 1370P)  
**63% LONGER BATTERY LIFE**  
 (AMD Ryzen PRO 7840U compared to Intel Core i7 1365U)  
**10% LONGER BATTERY LIFE**  
 (AMD Ryzen PRO 7840U compared to Apple M2 Pro processors)

# LEADERSHIP CPU PERFORMANCE VS APPLE M2 PRO

## Faster Performance in Premium Business Laptops<sup>8,9</sup>

- ✓ Superior "Zen 4" architecture
- ✓ 8 high performance cores
- ✓ 4nm delivered as promised



# LEADERSHIP MULTITASKING WITH RYZEN™ AI

With 8 high-performance cores and AMD Ryzen™ AI, AMD Ryzen™ PRO 7040 series processors accelerate performance using MS Office apps while running Teams conference with all AI effects turned on.



UP TO **83% FASTER<sup>13</sup>**  
(AMD Ryzen™ 7 PRO 7840U compared to Qualcomm SQ3 processor)



Teams Video Conference with AI Experiences



MS Office Apps

# COMPETITIVE PROCESSORS

AMD RYZEN PRO	P* CORES	PROCESS	INTEGRATED AI ENGINE	CONFIG. TDP	AMD PRO Technologies (COMPLETE)
AMD Ryzen™ 9 PRO 7940HS	8P	4nm	✓	35-54 W	✓
AMD Ryzen™ 7 PRO 7840HS	8P	4nm	✓	35-54 W	✓
AMD Ryzen™ 5 PRO 7640HS	6P	4nm	✓	35-54 W	✓
AMD Ryzen™ 7 PRO 7840U	8P	4nm	✓	15-28 W	✓
AMD Ryzen™ 5 PRO 7640U	6P	4nm	✓	15-28 W	✓
AMD Ryzen™ 5 PRO 7540U	6P	4nm		15-28 W	✓

\*P = Performance Cores

COMPARED TO (only the main processors)	P/E* CORES	PROCESS	INTEGRATED AI ENGINE	CONFIG. / NOMINAL TDP	INTEL vPRO
Intel Core i9-13900H Apple M2 Max	6P,8E 8P,4E	Intel 7 5nm	⊗ ✓	35-115 W 79W	Enterprise
Intel Core i7-13800H/13700H Apple M2 Pro/ M2 Max	6P,8E 8P,4E/8P, 4E	Intel 7 5nm	⊗ ✓	35-115 W 30W/79W	Enterprise
Intel Core i5-13600H/13500H	4P, 8E	Intel 7	⊗	35-95 W	Enterprise/ Essentials
Intel Core i7-1370P/1360P/1355U Apple M2	6P,8E/4P,8E/2P,8E 4P/4E	Intel 7 5nm	⊗ ✓	12-64 W 20 W	Enterprise/ Essentials
Intel Core i5-1350P/1340P/ 1335U	4P,8E/ 2P,8E	Intel 7	⊗	12-64 W	Enterprise/ Essentials
Intel Core i5-1350P/1340P 1335U	4P,8E/ 2P,8E	Intel 7	⊗	12-64 W	Enterprise/ Essentials

\*P = Performance Cores | \*E = Efficiency Cores

# AMD PROCESSORS PROVIDE

- Leadership Performance**
- Ultra Power Efficiency**
- Most Modern Security<sup>11</sup>**
- Premium AI Experiences**
- Open Standard Based Manageability**

It is highly recommended to pair this battlecard with [2023 AMD PRO Technologies for Ryzen PRO Technical Guide](#) which covers the cutting edge security features, robust manageability tools, and enterprise grade stability and reliability that comes in-built with AMD Ryzen™ PRO processors. These features together deliver a complete solution for the modern business.

1. Testing as of 6/13/23, by BDOX Technologies, commissioned by AMD, utilizing an HP EliteBook 845 G10 with Ryzen PRO 7840U processor @15W, Integrated Radeon Graphics, 16GB RAM, 1TB NVMe SSD, Windows 11 Pro, versus a similarly configured Dell Latitude 5440 with an Intel Core i7-1365U processor @15W, Intel Integrated graphics, 512GB NVMe SSD, Windows 11 Pro. Using an average composite geometric mean of the scores measured in the following benchmark tests: CPU - Geekbench v5 Single Core, Cinebench R23 n-thread and Passmark 11 CPU Mark; GPU - 3DMark Fire Strike Extreme Graphics, 3DMark Fire Strike Ultra Graphics, 3DMark Night Raid Graphics; Productivity - PCMark 10 Express, PCMark 10 Extended, PCMark 10 Productivity Test Group, Content Creation - SPECintepref 3dmax-06, Procyon Video Editing, and PCMark 10 Photo Editing. PC manufacturers may vary configurations yielding different results. Results may vary. PCMark® is a registered trademark of Futuremark Corporation. **PHXP-37**
2. As of August 2022, select Ryzen™ 7040 processors for mobile with dedicated AI hardware are the only x86 PC processors with dedicated AI hardware. **PHX-3**
3. Based on a smaller node size of the AMD processor for an x86 platform, as of August 2022. CO-203. RYZEN 7000 SERIES PRO mobile. Based on a smaller node size of the AMD processor for a business-class x86 platform, as of April 2023. **CO-203**
4. Testing as of 5/31/23 by BDOX 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, HP EliteBook 845 G10 with Ryzen PRO R7-7840U 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**
5. Testing as of 5/31/23 by BDOX 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 1355U processor, Intel Integrated graphics, 16GB RAM, 512GB NVMe SSD, Windows 11 Pro, HP EliteBook 845 G10 with Ryzen PRO R7-7840U 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**
6. 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 Wallpaper 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**
7. 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/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 GB RAM, 512GB NVMe SSD, macOS 13.2, and 69.6Wh battery consuming. 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. **PHXP-32**
8. Testing as of 6/3/23/23 by BDOX Technologies, commissioned by AMD, utilizing System configuration for AMD Ryzen 7 PRO 7840U/HP EliteBook 845 G10, 16GB RAM, 1TB NVMe SSD, Integrated Radeon Graphics, Windows 11 Pro. Testing as of 6/3/23/23 by AMD Internal Labs utilizing system configuration for Apple M2 Pro (10 core) processor: Apple MacBook Pro 14, 16GB RAM, 512GB NVMe SSD, Apple Integrated graphics, MacOs 13.2 using the following tests: Cinebench R23 nT, Cinebench R23 nT, Passmark 11 CPU Mark. Laptop manufacturers may vary configurations yielding different results. **PHXP-30**
9. Testing as of 6/3/23/23 by BDOX Technologies, commissioned by AMD, utilizing System configuration for AMD Ryzen 7 PRO 7840U/HP EliteBook 845 G10, 16GB RAM, 1TB NVMe SSD, Integrated Radeon Graphics, Windows 11 Pro. Testing as of 6/3/23/23 by AMD Internal Labs utilizing system configuration for Apple M2 Pro (10 core) processor: Apple MacBook Pro 14, 16GB RAM, 512GB NVMe SSD, Apple Integrated graphics, MacOs 13.2 using the following tests: Composite Geomean, Geomean score is a composite average score of Cinebench R23 nT, Cinebench R23 nT, Passmark 11 CPU Mark benchmark results. Laptop manufacturers may vary configurations yielding different results. **PHXP-31**
10. The best processor for performance with video AI experiences enabled in Windows Studio Effects for thin and light windows business laptops: AMD Ryzen™ 7 PRO 7840U processor offers up to 83% higher performance with video AI experiences in Windows Studio Effects while running Microsoft Teams + Procyon Overall benchmark when compared to a Qualcomm SQ3 processor. **PHXP-38**
11. "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**
12. 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**
13. 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, MAVAN FP7-101DR3INT-230331 (CR6), 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**

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