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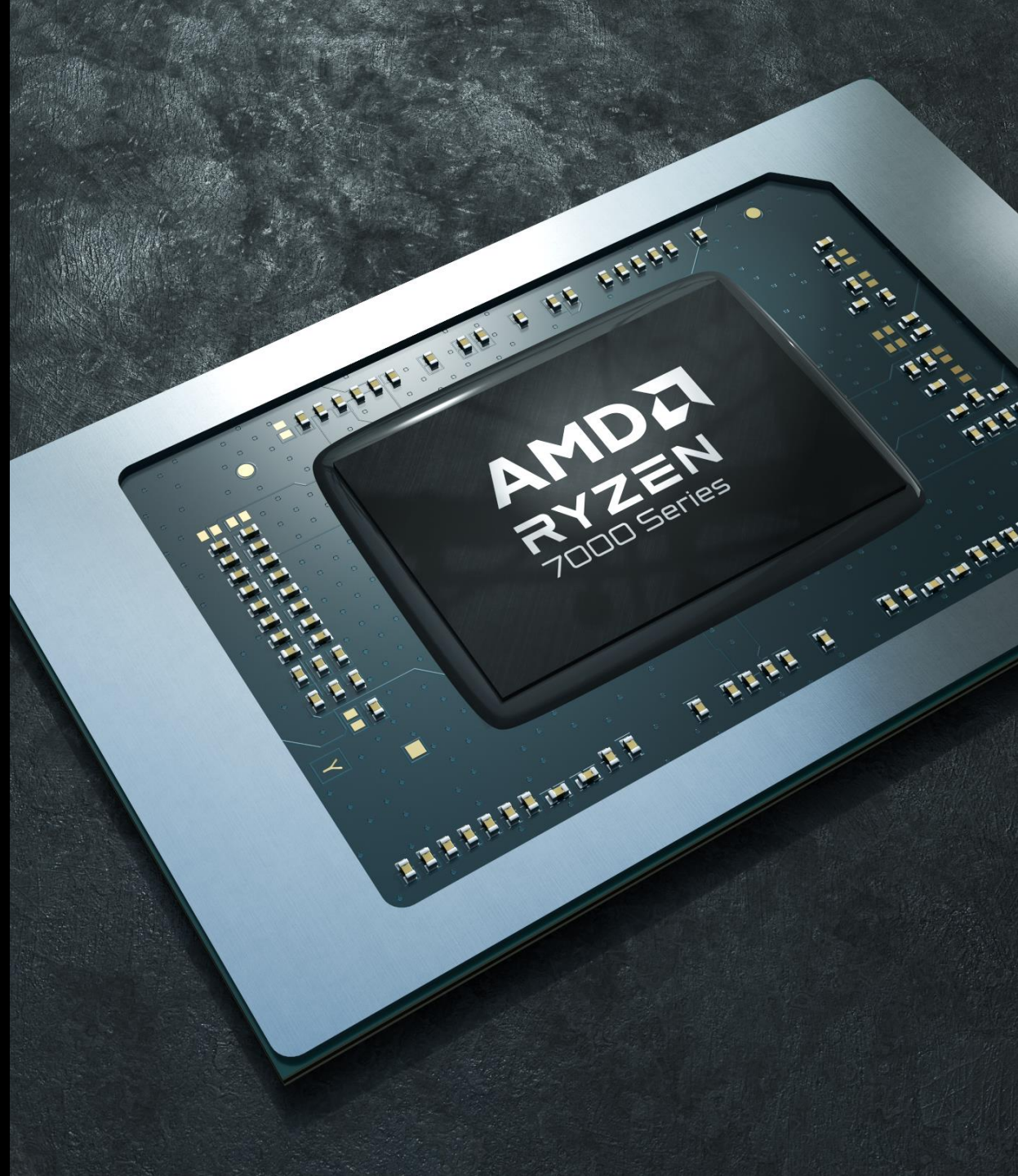
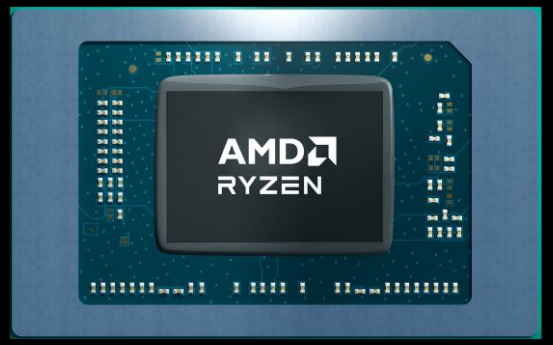
AMD RYZEN™ 7040U SERIES PROCESSORS

FOR MOBILE

EMBARGOED UNTIL MAY 3, 2023, 9 A.M. ET



[AMD Official Use Only - General]



Introducing

AMD RYZEN™ 7040U SERIES

More Performance. More Graphics. More Features.

Up to
8-Cores
16-Threads
'Zen 4' Technology

Up to
5.1
GHz
Max Boost

AMD Radeon™
700M Graphics
RDNA™ 3 Technology

*on select models
AMD
Ryzen™ AI
AMD XDNA™
Architecture

15-30W
TDP

See endnotes PHX-25, PHX-29, GD-150

[AMD Official Use Only - General]

AMD Ryzen™ 7040 U-SERIES PROCESSORS

MORE ULTRATHIN PERFORMANCE

MORE RESPONSIVENESS

The Fastest Productivity Performance in its Class

MORE MULTIPROCESSING

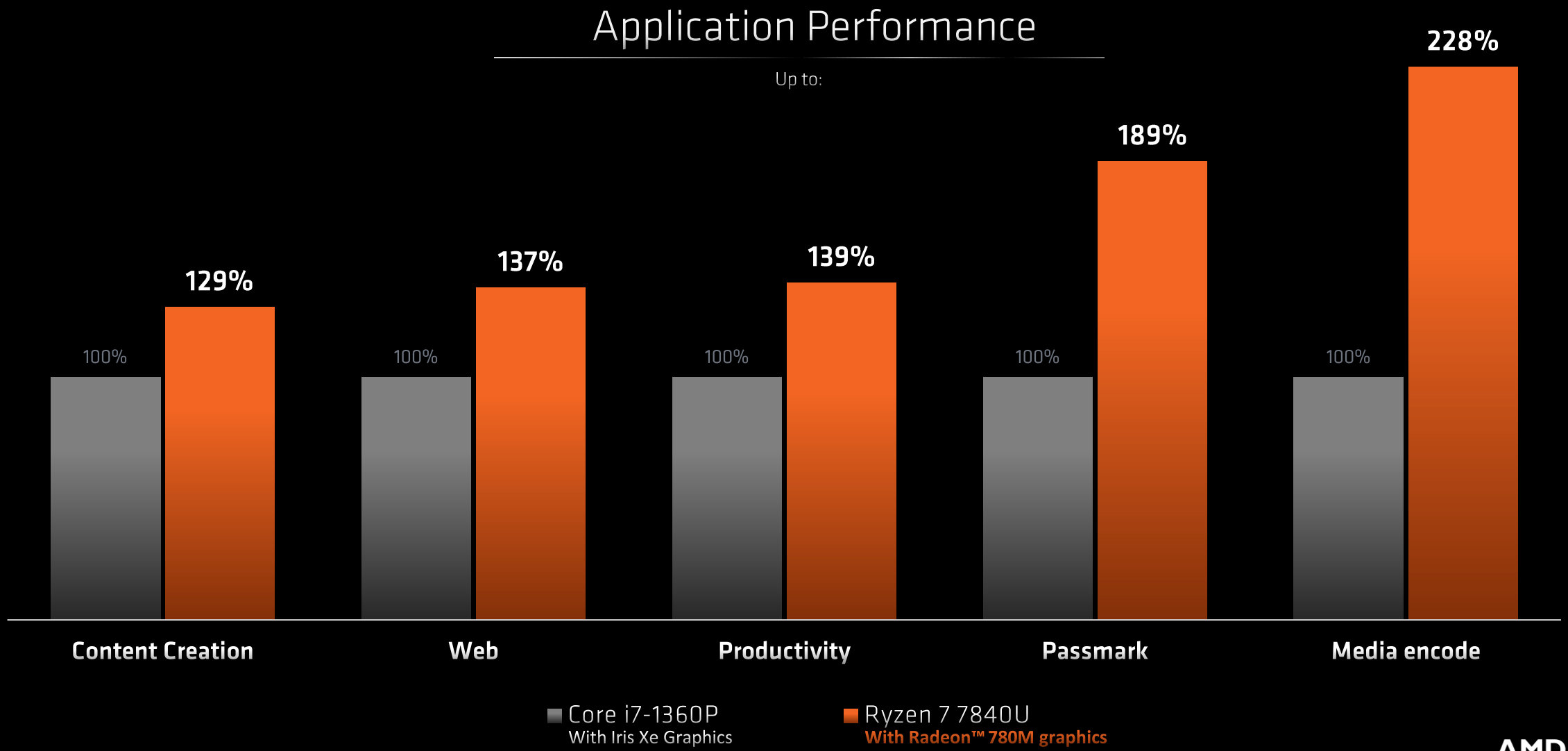
The Fastest Content Creation Performance in its Class

See endnotes PHX-26, PHX-27

[AMD Official Use Only - General]

AMD RYZEN™ 7040U SERIES

MORE PERFORMANCE ON WINDOWS NOTEBOOKS



See endnotes PHX-26, PHX-27

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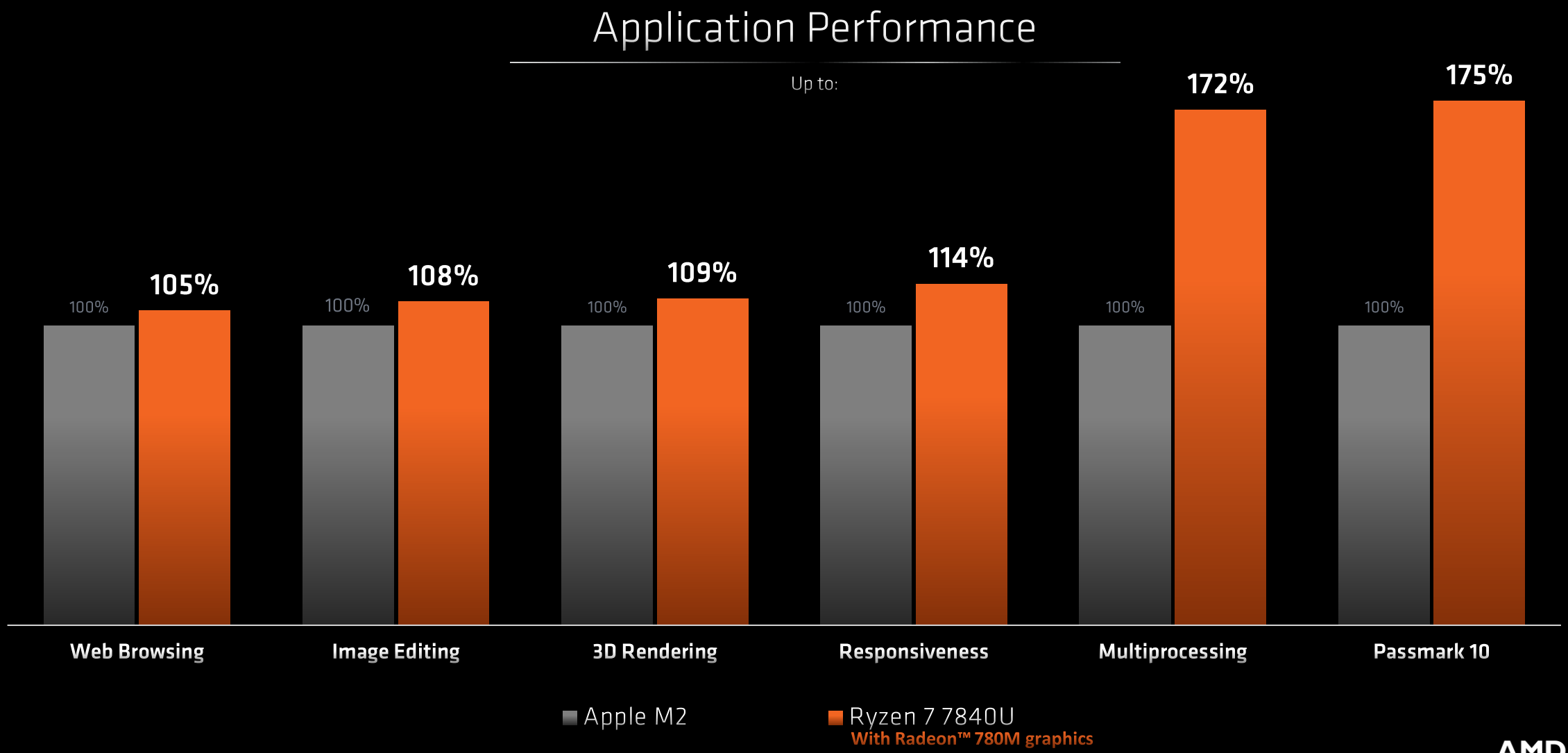
AMD RYZEN™ 7040U SERIES

MORE PERFORMANCE THAN APPLE NOTEBOOKS



See endnote PHX-30

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MORE GRAPHICS POWER THAN EVER BEFORE

WITH NEW AMD RADEON™ 700M SERIES GRAPHICS BUILT-IN

GPU MAX FREQUENCY NOW UP TO 2.7 GHZ
GPU frequencies up to 700MHz higher in Ryzen™ 5

PEAK PERFORMANCE INCREASED
To 8.6 TFLOPS (FP16) – 1.8 TFLOPS higher YoY

MASSIVE GRAPHICS BANDWIDTH
Thanks to DDR5/LPDDR5 support for up to 1.5x bandwidth

INCREDIBLE POWER EFFICIENCY
Via both GPU and Display Controller

NEW FEATURES
Unified RDNA™ 3 Compute Units

New Radiance Display Engine (DP 2.1)

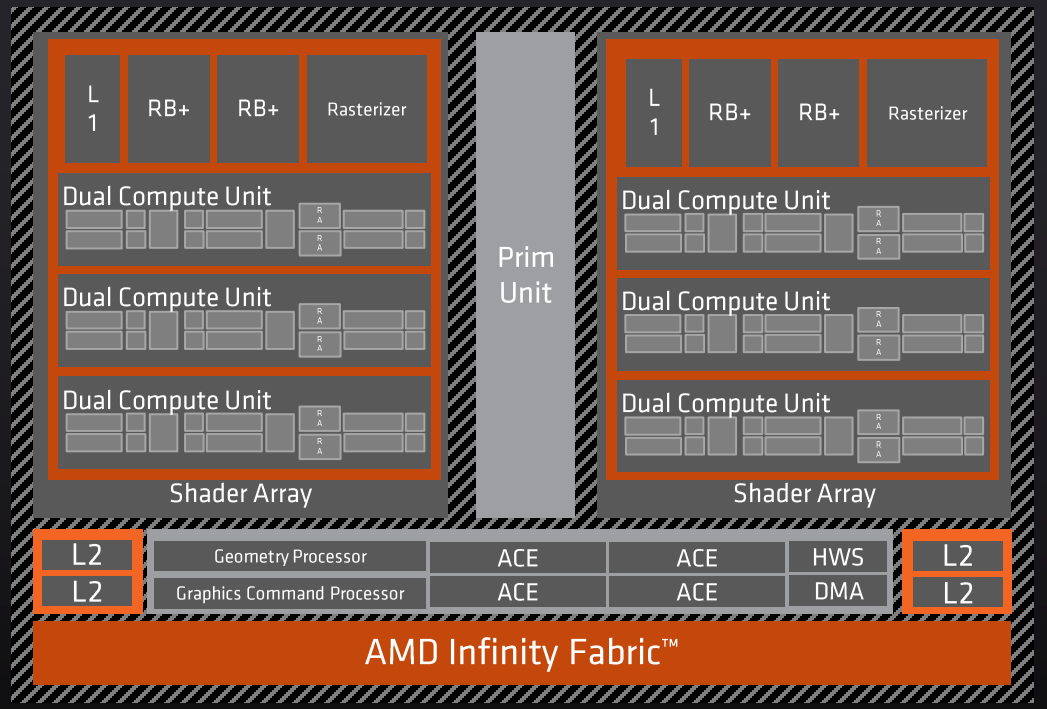
New Dual Media Engine (AV1 Encode/Decode, ML enhanced encode)

Enhanced Raytracing acceleration

Dual-Issue Wave32 Units

New AI instructions/Increased AI throughput

RADEON™ 700M BLOCK DIAGRAM



RADEON™ 780M
12 Cores, up to 2.7GHz, 4 RB+
ON AMD RYZEN™ 7 AND 9

RADEON™ 760M
8 Cores, up to 2.6GHz, 2 RB+
ON AMD RYZEN™ 5

RADEON™ 740M
4 Cores, up to 2.5GHz, 2 RB+
ON AMD RYZEN™ 5 AND 3

See endnote GD-150

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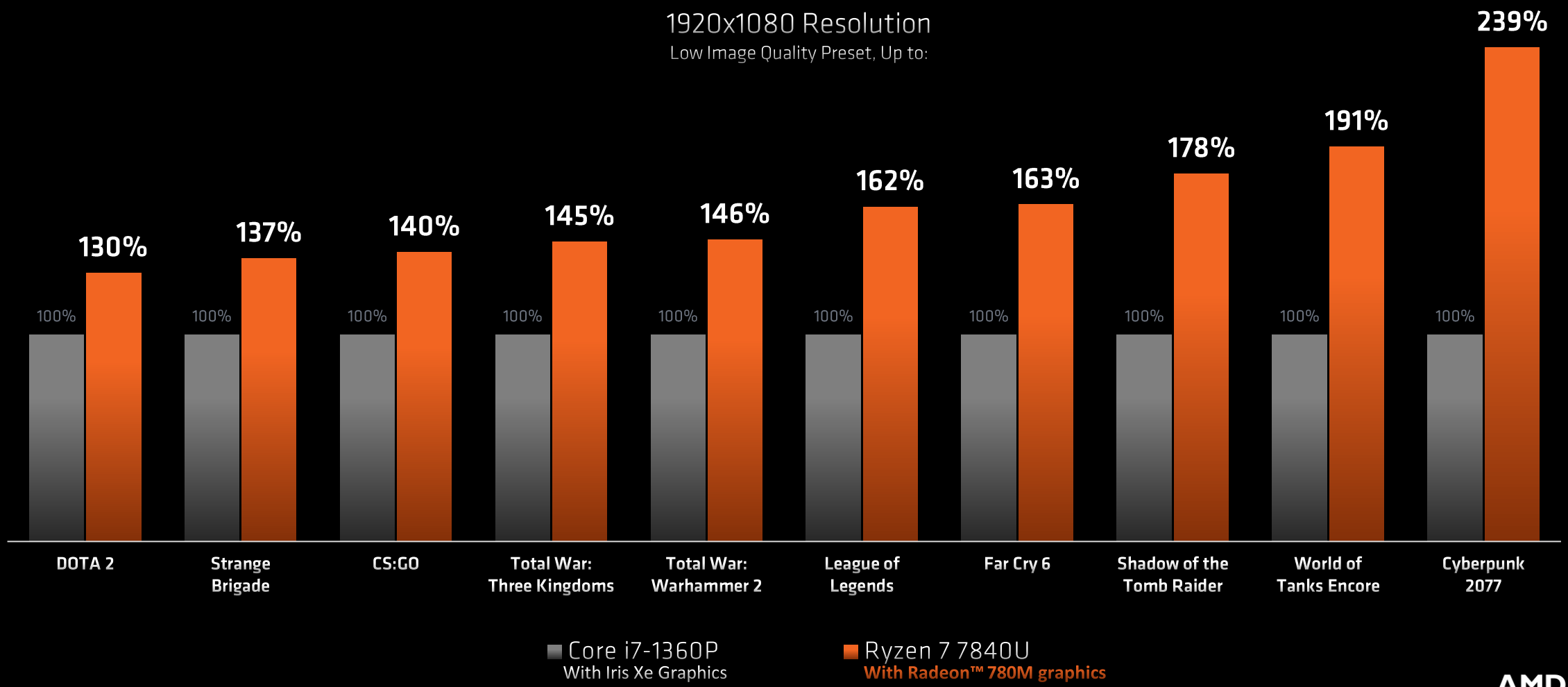
AMD RYZEN™ 7040U SERIES

INCREDIBLE GAME PERFORMANCE

Built-in Radeon™ 780M Performance

1920x1080 Resolution
Low Image Quality Preset, Up to:



See endnote PHX-28

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AMD RYZEN™ 7040U SERIES

FREEDOM TO UNPLUG

INCREDIBLE EFFICIENCY

- AMD invests heavily in leadership efficiency for exceptional battery life.
- The Ryzen™ 7040U Series take AMD efficiency even further with smart power management designed to deliver the longest possible time unplugged.

[AMD Official Use Only - General]

AMD RYZEN™ AI

MORE NEXT GEN CAPABILITIES

BRINGING THE POWER OF ARTIFICIAL INTELLIGENCE TO YOUR LAPTOP

The first AI processor of its kind, only AMD offers Ryzen™ AI to keep you on the leading edge today, and tomorrow.

YOUR KEY TO UNLOCK MAGICAL NEW EXPERIENCES

Amazing, upgradable capabilities can advance and improve over time. Run features on Ryzen™ AI to free up your processor performance for other tasks.

WITH SUPPORT FOR THE MICROSOFT STUDIO EFFECTS PACK

Advanced features in the incredible Studio Effects Pack in Windows 11 can only be enabled by a dedicated engine like AMD Ryzen™ AI.

(when supported by the platform)

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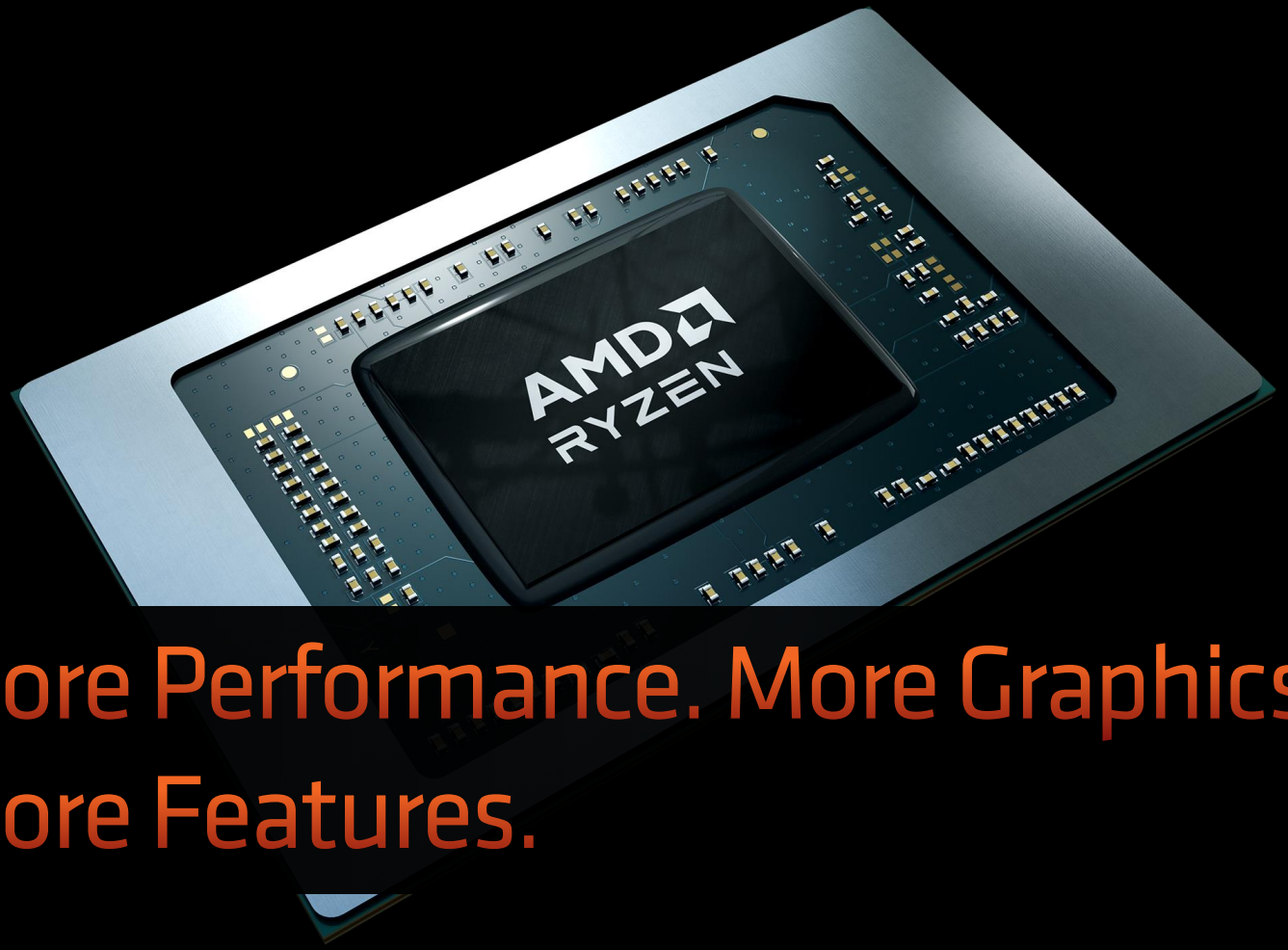
AMD RYZEN™ 7040U Series



More Performance. More Graphics. More Features.

Ryzen™ 7 7840U WITH RYZEN™ AI			
8-Core 16-Thread	Up To **5.1** GHz **3.3** GHz	**24MB** Cache	**15-30W** TDP
Ryzen™ 5 7640U WITH RYZEN™ AI			
6-Core 12-Thread	Up To **4.9** GHz **3.5** GHz	**22MB** Cache	**15-30W** TDP
Ryzen™ 5 7540U			
6-Core 12-Thread	Up To **4.9** GHz 3.2 GHz	**22MB** Cache	**15-30W** TDP
Ryzen™ 3 7440U			
4-Core 8-Thread	Up To **4.7** GHz **3.0** GHz	**12MB** Cache	**15-30W** TDP

SEE ENDNOTE: PHX-25, PHX-29, GD-150

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ENDNOTES

- PHX-3 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-25 Testing as of April 2023 by AMD Performance Labs using Cinebench R23, 3DMark Timespy, PCMark 10, Passmark 10, Speedometer. Configuration for AMD Ryzen™ 7 7840U: AMD Mayan reference board, 16GB RAM, Samsung SSD 980 PRO 1TB, BIOS RMH0081cA, integrated Radeon™ 700M graphics, Windows 11 Pro. Configuration for AMD Ryzen™ 7 6800U: Lenovo Thinkpad T14s Gen 3, 32GB RAM, 2TB SSD, BIOS R22ET22WT12 (0.22), integrated Radeon™ 600M graphics, Windows 11 Pro. 3DMark is a registered trademark of Futuremark Corporation. PC manufacturers may vary configurations yielding different results. Results may vary.
- PHX-26 Testing as of April 2023 by AMD Performance Labs using PCMark 10, Passmark, Kraken, and Procyon Microsoft productivity benchmarks. The relevant class is defined as ultrathin processors with 28W TDP currently available in market as of April 2023. Configuration for AMD Ryzen™ 7 7840U: AMD Mayan reference board, 16GB RAM, SSD 1TB, BIOS RMH0081cA, integrated Radeon 700M graphics, Windows 11 Pro. Configuration for Intel Core i7-1360P: MSI Summit Flip 14, 32GB RAM, 1TB SSD, integrated Intel Iris xe graphics, Windows 11 Pro. PassMark is a registered trademark of PassMark Software Pty Ltd. PCMARK is a registered trademark of UL Solutions. PC manufacturers may vary configurations yielding different results. Results may vary.
- PHX-27 Testing as of April 2023 by AMD Performance Labs using PCMark 10 Digital Content Creation (DCC), HandBrake, Blender, and LAME MP3 benchmarks. The relevant class is defined as ultrathin x86 processors with 28W TDP currently available in market as of April 2023. Configuration for AMD Ryzen™ 7 7840U: AMD Mayan reference board, 16GB RAM, SSD 1TB, BIOS RMH0081cA, integrated Radeon 700M graphics, Windows 11 Pro. Configuration for Intel Core i7-1360P: MSI Summit Flip 14, 32GB RAM, 1TB SSD, integrated Intel Iris xe graphics, Windows 11 Pro. PCMARK is a registered trademark of UL Solutions. PC manufacturers may vary configurations yielding different results. Results may vary.
- PHX-28 Testing as of April 2023 by AMD Performance Labs using 3DMark Timespy and the following game titles tested at 1080P, low settings: Far Cry 6, CS:GO, Grand Theft Auto V, Assassin's Creed Valhalla, Borderlands 3, DOTA 2. The relevant class is defined as ultrathin x86 processors with integrated graphics and 28W TDP currently available in market as of April 2023. Configuration for AMD Ryzen™ 7 7840U: AMD Mayan reference board, 16GB RAM, SSD 1TB, BIOS RMH0081cA, integrated Radeon 700M graphics, Windows 11 Pro. Configuration for Intel Core i7-1360P: MSI Summit Flip 14, 32GB RAM, 1TB SSD, integrated Intel Iris xe graphics, Windows 11 Pro 3DMark is a registered trademark of UL Solutions. PC manufacturers may vary configurations yielding different results. Results may vary.
- PHX-29 Testing as of April 2023 by AMD Performance Labs using 3DMark Timespy and the following game titles tested at 1080P, lowest settings: F1 2021, Far Cry 6, CS:GO, Grand Theft Auto V, World of Tanks Encore, Assassin's Creed Valhalla, Borderlands 3, DOTA 2, League of Legends, Total War: Three Kingdoms Battle, Shadow of the Tomb Raider, Final Fantasy XIV, Strange Brigade. Configuration for AMD Ryzen™ 7 7840U: AMD Mayan reference board, 16GB RAM, SSD 1TB, BIOS RMH0081cA, integrated Radeon 700M graphics, Windows 11 Pro. Configuration for AMD Ryzen 7 6800U: Lenovo Thinkpad T14s Gen 3, 32GB RAM, 2TB SSD, BIOS R22ET22WT12 (0.22), integrated Radeon™ 600M graphics, Windows 11 Pro. 3DMark is a registered trademark of UL Solutions. PC manufacturers may vary configurations yielding different results. Results may vary.
- PHX-30 Testing as of April 2023 by AMD Performance Labs using Cinebench R23, Passmark 10, Kraken, Puget, and Blender benchmarks. Configuration for AMD Ryzen 7 7840U: AMD Mayan reference board, 16GB RAM, Samsung SSD 980 PRO 1TB, BIOS RMH0081cA, integrated Radeon 700M graphics, Windows 11 Pro. Configuration for Apple M2: MacBook Pro 13", 16GB-LDDR5 RAM, 1TB Apple SSD AP0512Z. OEMs may vary configurations yielding different results. Results may vary.
- GD-150 Boost Clock Frequency is the maximum frequency achievable on the CPU running a bursty workload. Boost clock achievability, frequency, and sustainability will vary based on several factors, including but not limited to: thermal conditions and variation in applications and workloads.

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