SNAPDRAGON® X

Overview Deck

Snapdragon and Qualcomm branded products are products of Qualcomm Technologies, Inc. and/or its subsidiaries.

Snapdragon® X Series Processors have revolutionized the PC

techradar choice awards WINNER 2024

Snapdragon® X Elite Platform winner for best processor

tom's guide BEST OF COMPUTEX 2024

Snapdragon X Elite, winner for best of show

2024 BEST PRODUCTS TECH AWARDS

Microsoft Surface Laptop 7, winner for Best PC laptop

#1 processor powering Copilot+ PCs

Snapdragon X Elite

Snapdragon X Plus

Snapdragon X Plus

Delivering technology leadership at scale

Leading CPU technology

The first and best Copilot+ PCs

45 TOPS NPU

AI performance per watt leadership

Leading battery life

Qualcomm Oryon™ CPU

Performance unplugged

Single-core

Geekbench

Intel Core Ultra 7 Series 2 256V	**AMD Ryzen AI 9** HX 370	Snapdragon X Elite
-45%	-30%	No Drop

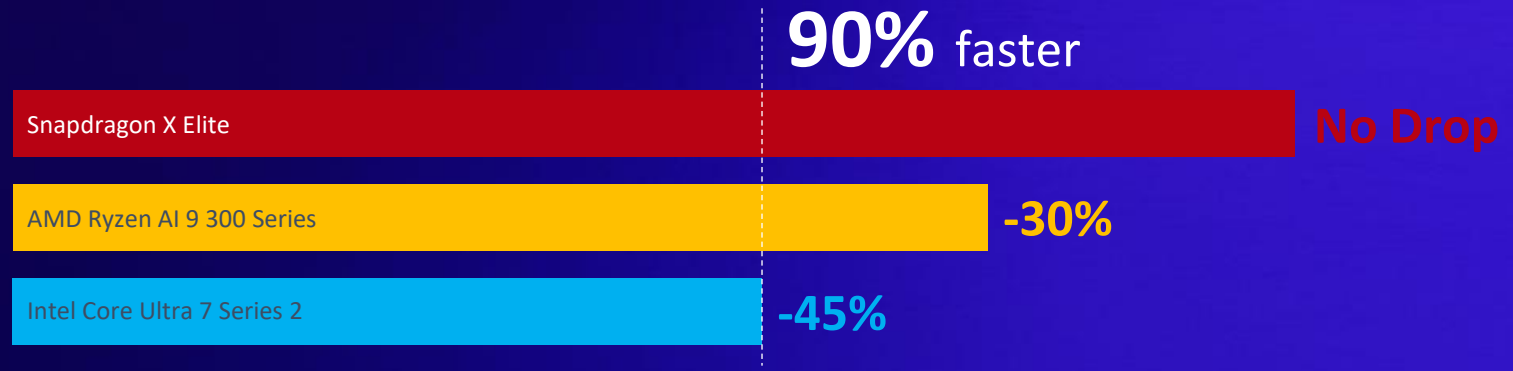
CPU Performance is based is based on Geekbench v6.2 Single-Core on Windows 11 OS run in October 2024, Snapdragon X Elite (XIE-80-100) was tested using a Dell XPS 13 (9345) on “Balanced” Power Mode in Windows and “Optimized” in Dell Power Manager.
Intel Core Ultra 7 256V was tested using a Dell XPS 13 (9350) on “Balanced” Power Mode in Windows and “Standard mode” in Windows and “Optimized” in Dell Power Manager. The AMD Ryzen AI 9 HX 370 was tested using an ASUS Vivobook S 14 (M5406WA) on “Balanced” Power Mode in Windows and “Standard mode” in MyASUS. Power and performance comparison reflects results based on measurements and hardware instrumentation of given devices.

Qualcomm Oryon CPU

Performance unplugged

Single-core

Geekbench



CPU Performance is based is based on Geekbench v6.2 Single-Core on Windows 11 OS run in October 2024, Snapdragon X Elite (XIE-80-100) was tested using a Dell XPS 13 (9345) on “Balanced” Power Mode in Windows and “Optimized” in Dell Power Manager.
Intel Core Ultra 7 256V was tested using a Dell XPS 13 (9350) on “Balanced” Power Mode in Windows and “Standard mode” in Windows and “Optimized” in Dell Power Manager. The AMD Ryzen AI 9 HX 370 was tested using an ASUS Vivobook S 14 (M5406WA) on “Balanced” Power Mode in Windows and “Standard mode” in MyASUS. Power and performance comparison reflects results based on measurements and hardware instrumentation of given devices.

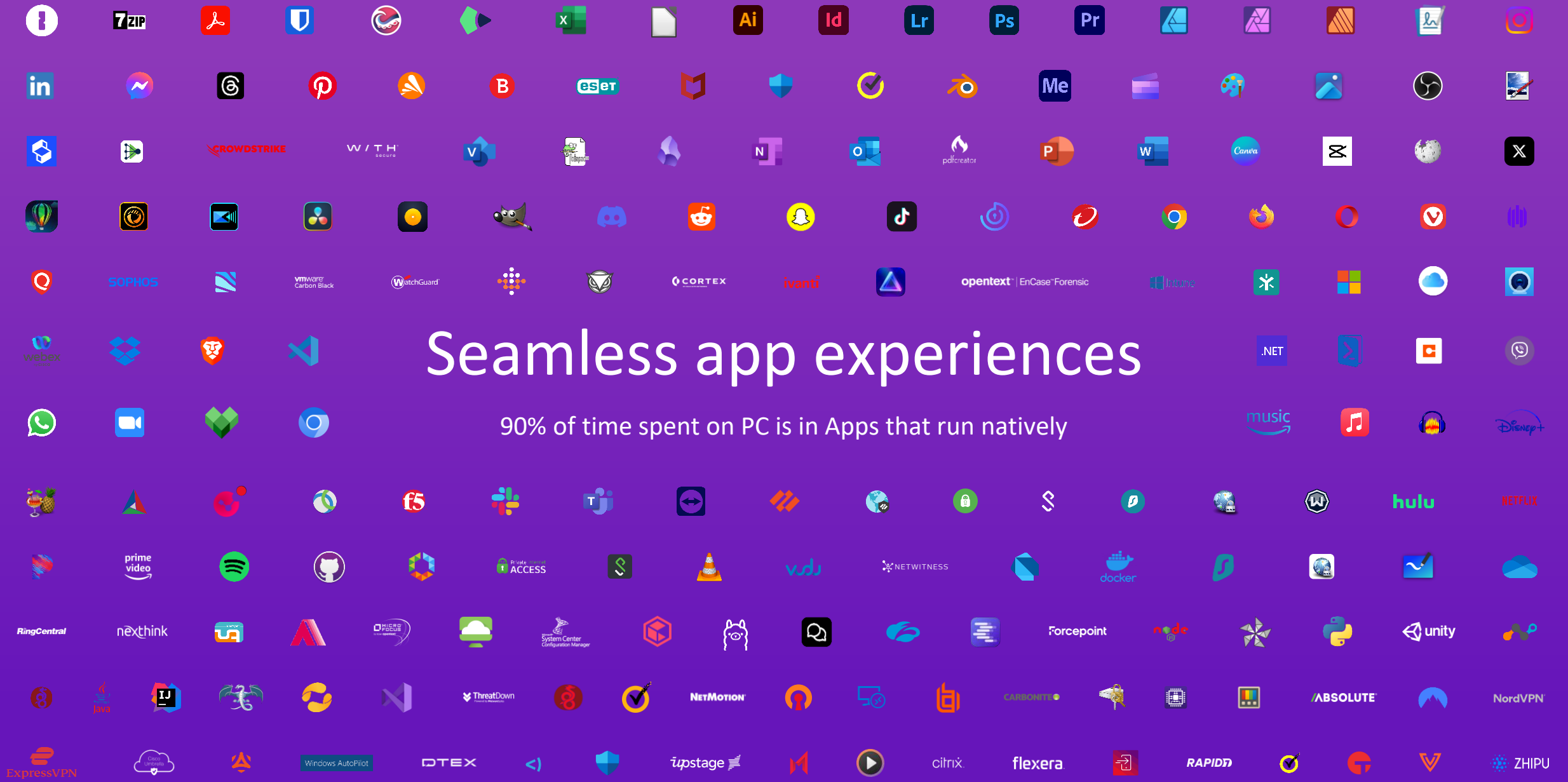
Snapdragon X Elite

Snapdragon X Plus

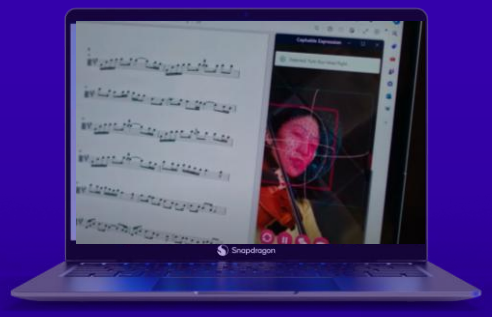
Snapdragon X Plus

Seamless app experiences

90% of time spent on PC is in Apps that run natively

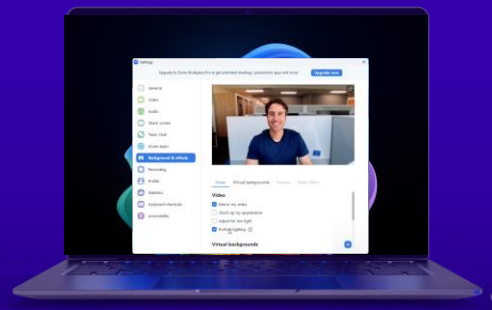


Microsoft Windows Blog. September 3, 2024: "Copilot+ PCs expand availability with new AMD and Intel silicon"



Control apps with your voice and facial gestures

Cephable



Portrait Lighting and Virtual Background

Zoom

Neural Mix Instrument isolation

djay Pro

3D modeling with text to image generation

Blender

Object and Subject Selection

Affinity Photo 2

NPU Powered AI Experiences

Auto Cutout

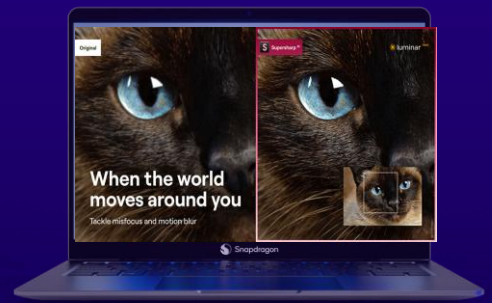
CapCut

Magic Mask and Super Scale

Blackmagic Design DaVinci Resolve

AI Cropping and AI Color Grading

Capture One



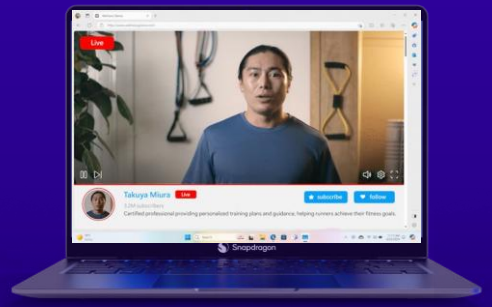
AI Supersharp and AI Upscale

Luminar Neo

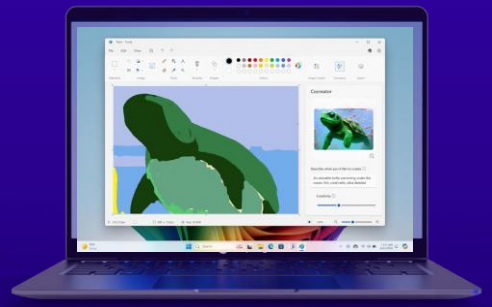
Enhanced Webcam quality

Camo

Copilot+ NPU Powered AI Experiences



Live Translation



Cocreate

Windows Studio Effects Animate

Windows Studio Effects Portrait Light

Generative Fill and Erase in Photos

Click to do

Super Resolution in Photos

Recall

Up to

75%

of workers are utilizing AI in the workplace

Microsoft Work Trend Index 2024

Essential PC Need for AI

x86 architecture **doesn't** deliver the modern PC for everyone

Top demands for modern PCs

- Better performance, Even unplugged
- Long battery life
- Sustained performance with low thermals
- On-device AI tools & experiences
- Copilot+ features

INTRODUCING

Snapdragon X Platform

Elevating the PC experience for everyone

Snapdragon X User Profiles

Personas	Students Age 18-25	Freelance Workers Age 25-35	Price Conscious Consumer Age 30-40
Uses	Essential Productivity | Mobility	Professional | Mobility	Mainstream | Mobility
Purchase Criteria	Essential performance and all-day battery life, perfect for powering through classwork and unwinding with your favorite entertainment.	Reliable performance and all-day battery life to keep you productive and connected, wherever work takes you.	Everyday performance and lasting battery life for seamless entertainment and effortless household management.
Common Apps			

Snapdragon X Series for All

Snapdragon processors make up over

95%

of Copilot+ PC Sales today

Now available in over

20

countries in major markets

Snapdragon delivers solutions to over

60%

of the total Windows market

Circana & GfK Consumer Publication of Shipments data; November publication, 2024

Snapdragon X Platform

Essential performance for mainstream PCs

8 high performance cores up to 3.0 GHz

4nm process node

45 TOPS

30 MB total cache

LPDDR5x

135 GB/s memory bandwidth

Actual speed up to 2.976 GHz

LEADING CPU PERFORMANCE PER WATT

vs. Intel Core 5 120U

Single-Core (Geekbench)

Snapdragon delivers up to

163%

faster performance
at iso-power

Competitor requires

168%

more power
at iso-performance

Multi-Core (Geekbench)

Snapdragon delivers up to

157%

faster performance
at iso-power

Competitor requires

240%

more power
at iso-performance

CPU Performance is based on Geekbench v6.2 Single-Core and Multi-Core on Windows 11 OS run in November 2024. Snapdragon X (X1-26-100) was tested using a Qualcomm reference design on Windows 11 OS. The Intel Core 5 120U was tested using an Dell Inspiron 14 (7440 2-in-1) laptop on Windows 11. Both platforms' Single-Core iso-power performance measured at 6.1W INPP (Idle-Normalized Platform Power). Intel Core Ultra 5 120U Single-Core iso-performance power measured at 16.5W INPP. Both platforms' Multi-Core iso-power performance measured at 14.5W INPP (Idle-Normalized Platform Power). Intel Core Ultra 5 120U Multi-Core iso-performance power measured at 49.3W INPP. Power and performance comparison reflects results based on measurements and hardware instrumentation of given devices.

LEADING GPU PERFORMANCE PER WATT

vs. Intel Core 5 120U

3D Mark Wildlife Extreme

Snapdragon delivers up to

319%

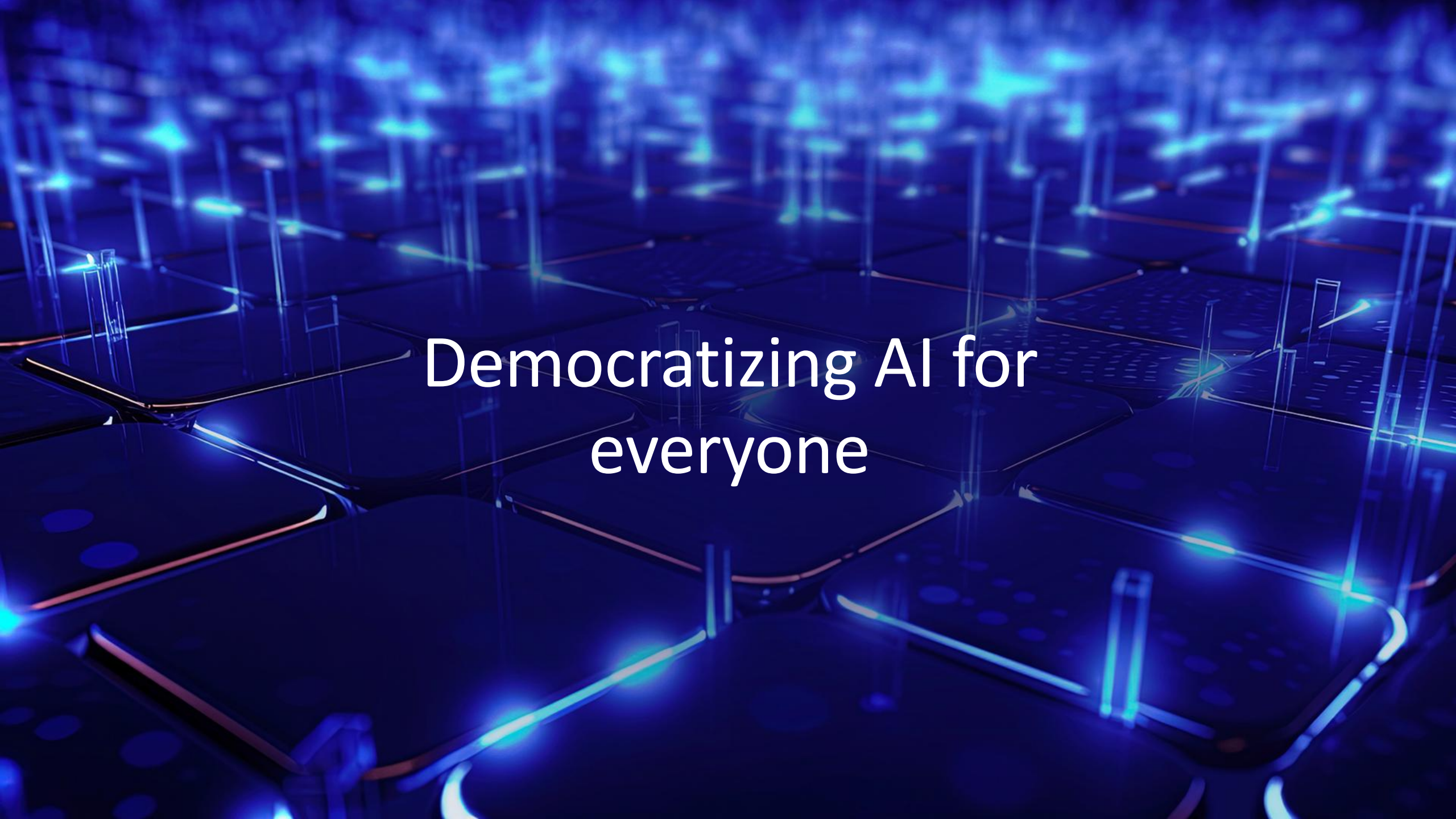
faster performance
at iso-power

Competitor requires

258%

more power
at iso-performance

GPU performance is based on 3DMark Wildlife Extreme (Vulkan) on Windows 11 OS run in November 2024. Snapdragon X (X1-26-100) was tested using a Qualcomm laptop reference design on Windows 11 OS. The Intel Core 5 120U was tested using an Dell Inspiron 14 (7440 2-in-1) laptop on Windows 11. Both platforms' iso-power performance measured at 8.0W INPP (Idle-Normalized Platform Power). Intel Core Ultra 5 120U iso-performance power measured at 28.7W INPP. Power and performance comparison reflects results based on measurements and hardware instrumentation of given devices.


Democratizing AI for
everyone

Copilot+PC

The best processors to power Copilot+ today

- Live translation
- Cocreator
- Windows Studio Effects Animate
- Windows Studio Effects Portrait Light
- Generative Fill in Photos
- Generative Erase in Photos
- Super Resolution in Photos
- Click to Do
- Recall

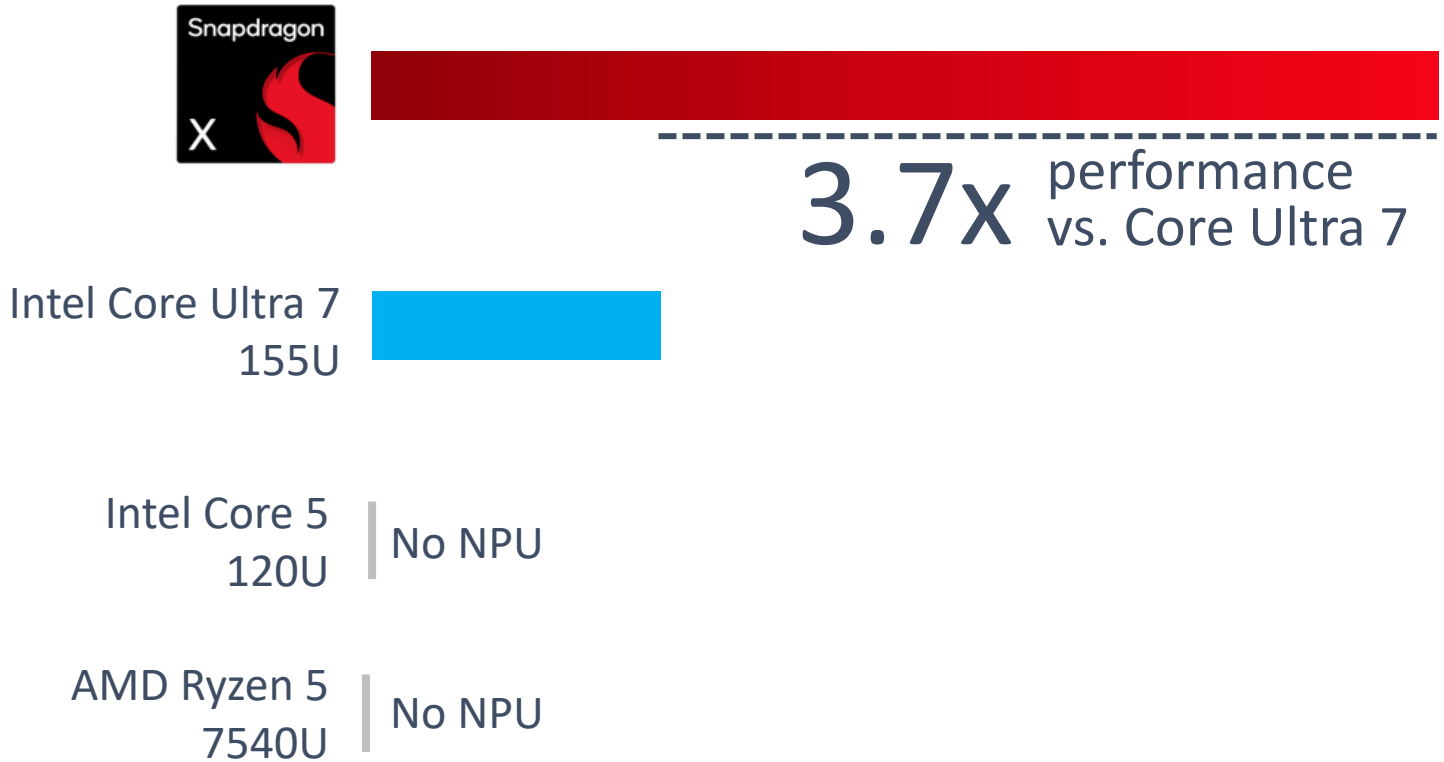
Powered by our

45 TOPS NPU

across the tiers

NPU performance leadership

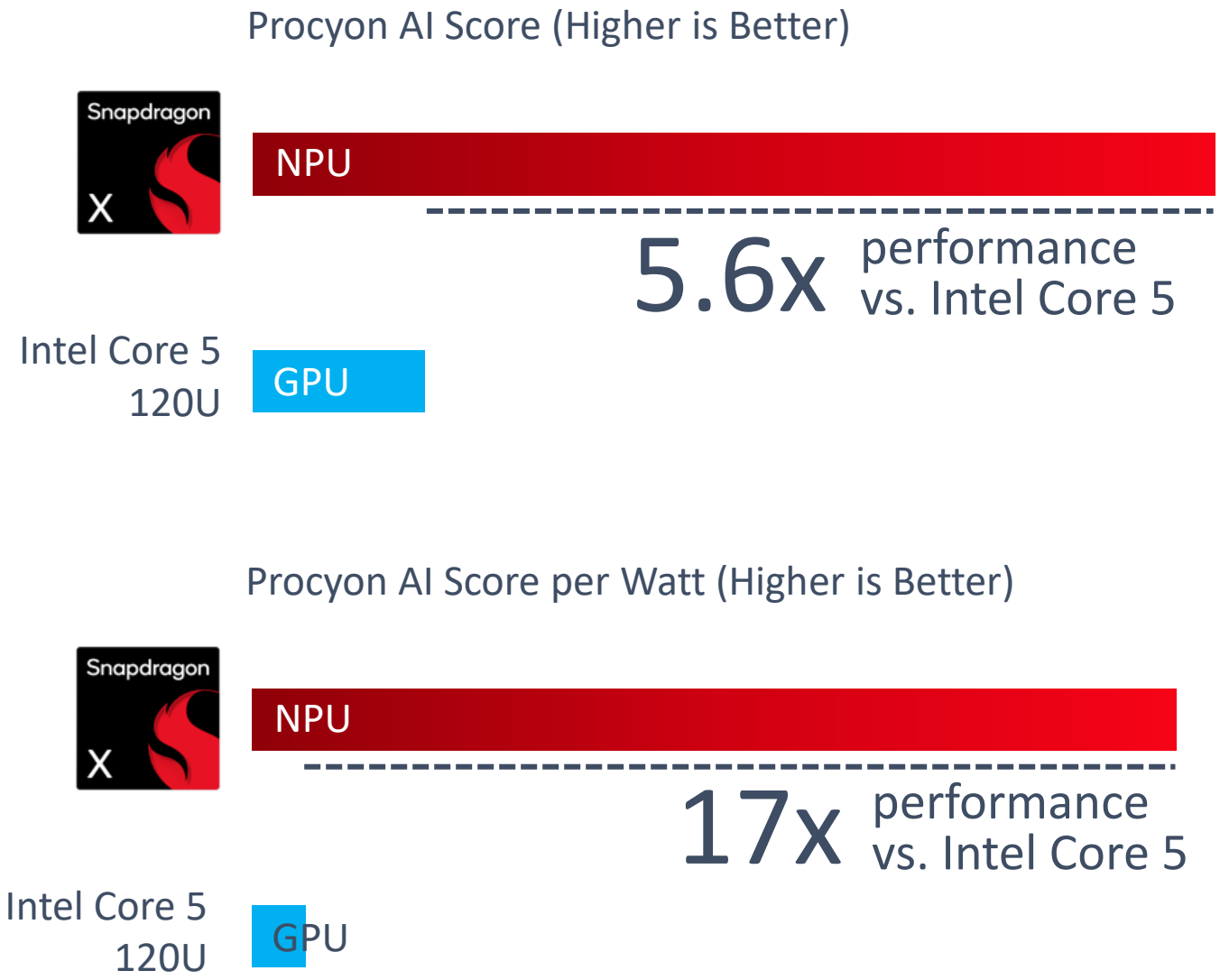
Procyon AI Score



NPU Performance is based on UL Procyon AI Benchmark on Windows 11 OS run in August and November 2024. Snapdragon X (X1-26-100) was tested using a Qualcomm laptop reference design on Windows 11 OS. The Intel Core Ultra 7 155U was tested using an Asus ZenBook S 13 (UX5304MA) laptop on Windows 11. Power and performance comparison reflects results based on measurements and hardware instrumentation of given devices.

The NPU is built for AI

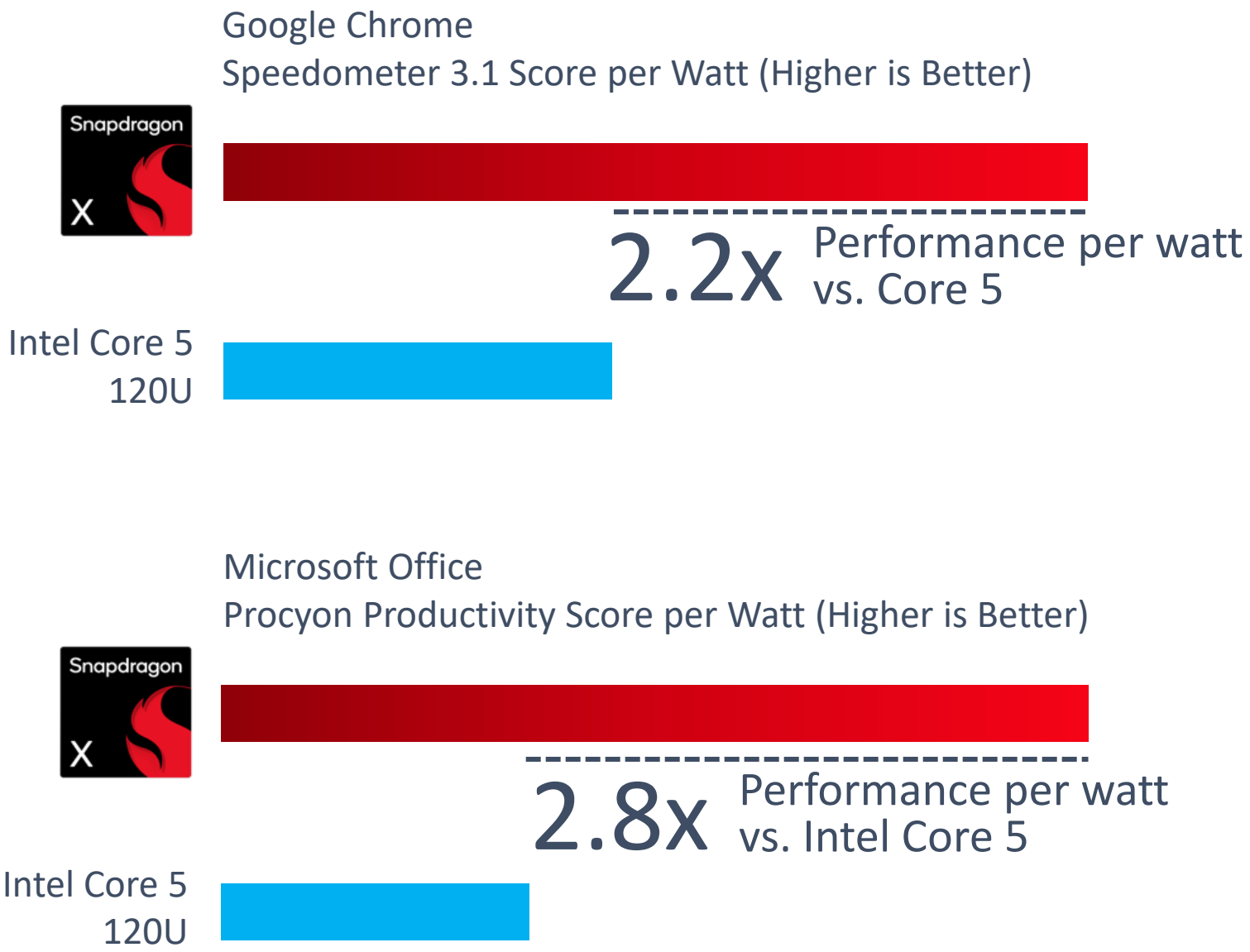
Faster & more efficient



NPU Performance is based on UL Procyon AI Benchmark on Windows 11 OS run in November 2024. Snapdragon X (X1-26-100) was tested using a Qualcomm laptop reference design on Windows 11 OS. The Intel Core 5 120U was tested using an Dell Inspiron 14 (7440 2-in-1) laptop on Windows 11. Power and performance comparison reflects results based on measurements and hardware instrumentation of given devices. Tests were run on NPU on Snapdragon device, and tests were run on GPU on Intel device

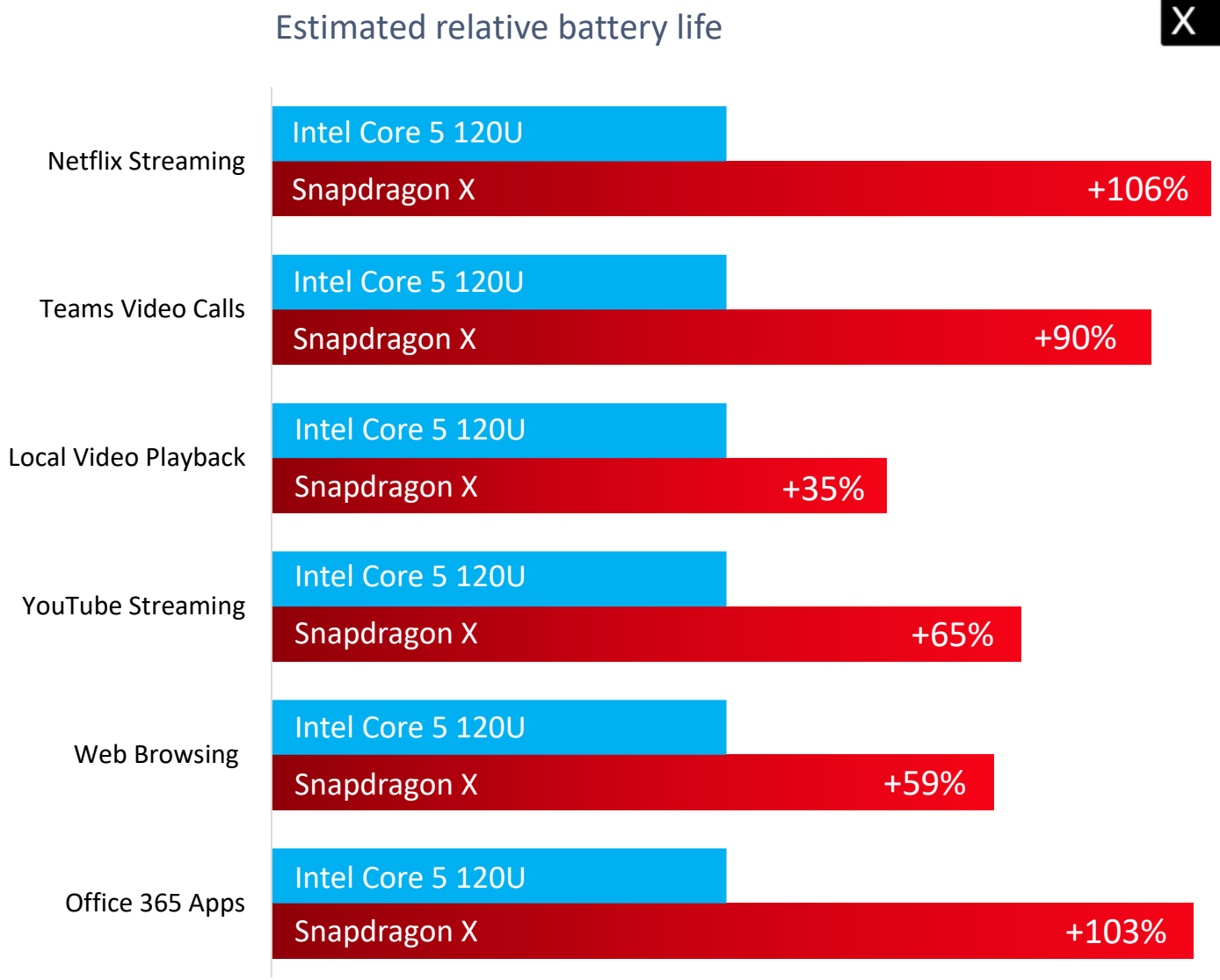
Delivering leading battery life to mainstream PCs

Performance efficiency leadership in top apps



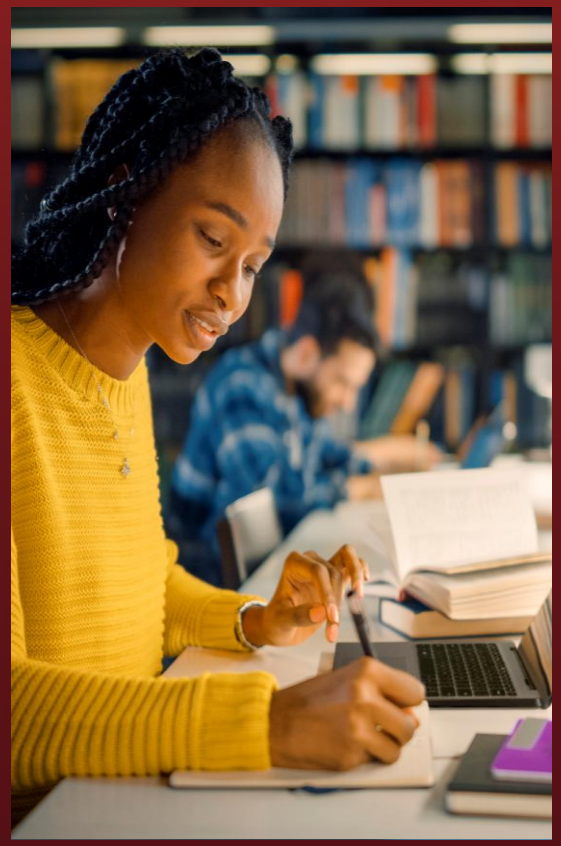
Browser performance is based on Speedometer 3.1 performance in the Google Chrome browser on Windows 11 OS run in November 2024. Productivity performance is based on ULI Procyon Office Productivity on Windows 11 OS run in November 2024. Snapdragon X 8-core (X1-26-100) was tested using a Qualcomm laptop reference design on Windows 11 OS. The Intel Core 5 120U (10 core) was tested using an Dell Inspiron 14 (7440 2-in-1) laptop on Windows 11. Power and performance comparison reflects results based on measurements and hardware instrumentation of given devices.

Battery Life Leadership for Windows



Power is measured while running the indicated test application run in Windows 11 in November 2024. Snapdragon X 8-core (X1-26-100) was tested using a Qualcomm reference design on Windows 11 OS. The Intel Core Ultra 7 155U (12 core) was tested using an Asus ZenBook S 13 OLED (UX3405) laptop on Windows 11. On battery performance measured on "Balanced" Power Mode in windowsPower and performance comparison reflects results based on measurements and hardware instrumentation of given devices. Battery life varies significantly with settings, usage, and other factors.

Deliver leading PC user experiences



Quiet

Standby Efficiency

Cool Temps

Instant Wake

Smarter user experiences

Immersive lossless audio

- High-fidelity music listening
- Lag-free entertainment
- Bluetooth 5.4
- Qualcomm Aqstic™ audio
- Qualcomm® aptX™ Audio

Advanced camera

- Integrated Always-Sensing ISP
- 18-bit ISP
- MIPI camera support
- 4K HDR video capture

Lightning-fast connectivity

Chip-to-cloud security

- **Qualcomm® Secure Processing Unit with Microsoft Pluton solution**
- **Total Memory Encryption**
- **Zero Trust Protection**

Seamless switching

- Easily move between your favorite devices with Snapdragon
- Support across Windows and Android

Snapdragon X

Snapdragon X Platform

Built for AI

45 TOPS
Qualcomm® Hexagon™ NPU

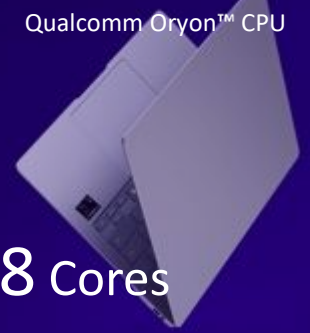
Copilot+PC

Expanding Copilot+ to more PCs

Support for 3 external displays all at UHD 60Hz

Qualcomm® Adreno™ GPU

Qualcomm Oryon™ CPU

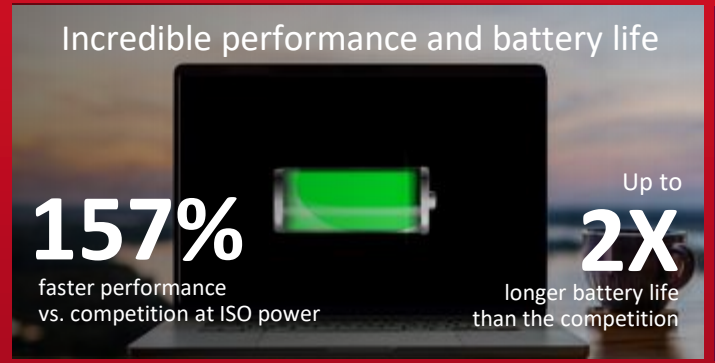


8 Cores

Always-Sensing ISP

Integrated Micro NPU on Qualcomm® Sensing Hub

Incredible performance and battery life



157%
faster performance vs. competition at ISO power

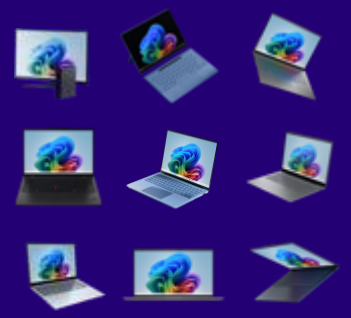
Up to 2X
longer battery life than the competition

Quiet
Cool
Standby efficiency
Instant wake

4nm
process node

LPDDR5x
30MB total cache

Scalable
across a range of thermal designs and form factors



Smart user experiences

Snapdragon connect
Snapdragon sound
Snapdragon secure
Snapdragon sight

Lightning-fast 5G | Wi-Fi 7
Immersive lossless audio
Advanced camera ISP
Snapdragon Seamless™ experience
Chip-to-cloud security

CPU Performance is based on Geekbench v6.2 Multi-Core on Windows 11 OS run October 2024. Snapdragon X was tested using a Qualcomm reference design. Intel Core 5 120U was tested using a Dell Inspiron 16 Laptop. Maximum performance reflected by Intel Core 5 120U represent maximum achievable results in given platforms under unconstrained PL1/PL2 settings and no thermal limitations. Power and performance comparison reflects results based on measurements and hardware instrumentation of given devices. Lowest power and performance figures may not represent the lowest achievable platform power and performance. Power and performance comparison reflects results based on measurements and hardware instrumentation of given devices. Battery life varies significantly with settings, usage, and other factors.

The best and newest Copilot+ experiences run on Snapdragon, powering all tiers.

Snapdragon X Elite

Leading CPU technology

Snapdragon X Plus

The first and best Copilot+ PCs

45 TOPS NPU

Snapdragon X

AI performance per watt leadership

Leading battery life

Snapdragon X Platform

Global launches beginning January 2025

acer

ASUS

DELL Technologies

hp

Lenovo

THANK YOU

Under embargo until DATE TBC - CEST

Snapdragon

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