
intel.
Intel® Core™ Ultra
Series 3
Processors
January 5th 2026

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Notices and Disclaimers

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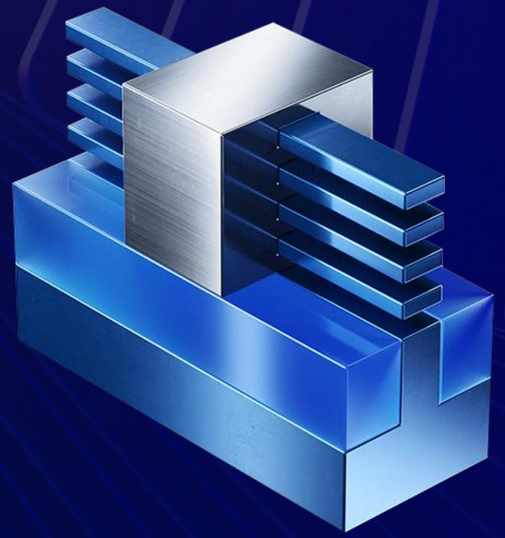

AAEON
Abaco SYSTEMS AMETEK
acer
activeloop
ADLINK
Adobe
aftershoot
ASRock
ASUS
AUTODESK
Axell
Baidu 百度
bcm ADVANCED RESEARCH
Blackmagicdesign
blender
Canonical
CANVIA
CARTKEN
Casper
Cephable
circulus
citrix
congatec
CROWDSTRIKE
CyberLink
Microsoft Defender
DELL Technologies
Distinct AI
DXO
DynaBook
Dynamo AI
EA
edgerunner AI
FUJITSU
GAME GARAJ
Google
H3C
HONOR
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HPE
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ITOPYA.COM
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THIRDWAVE
Topaz Labs
TROSSEN
TURINTECH
UNITCOM
VAIO
webex by CISCO
WORTMANN AG
xiaomi
XSplit
zoom
World-class
Partners
For world-changing technology



Develop, Deploy, and Build in the U.S.

intel 18A

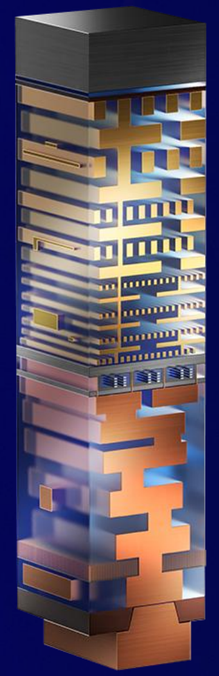
RibbonFET Transistor



In High Volume Production

To deliver at global scale

PowerVia Technology



intel 18A

Power & Area Efficiency

Unlocked by RibbonFET & PowerVia

RibbonFET Transistor





PowerVia Technology





Details at intel.com/performanceindex


Client Strategic Anchors
Leadership Manufacturing
U.S. Manufacturing and R&D
Advanced packaging
18A at scale
Leadership x86 Processors
Power efficient performance
Hybrid core architecture
Multi-engine local AI


Meet the needs of
the ecosystem and
Anticipate
What's Next

Intel® Core™ Ultra Series 3

Built with intel 18A



Exceptional performance

Enduring efficiency

Leading AI experiences

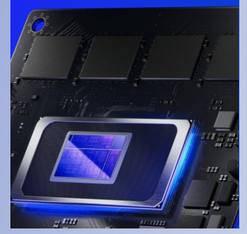
Game-changing graphics

Loaded with connectivity & I/O

Intel® Core™ Ultra Series 3

Up to **16** CPU cores

Up to **96GB** LPDDR5



Next-gen IPU 7.5



Up to **180** TOPS

Across the total platform

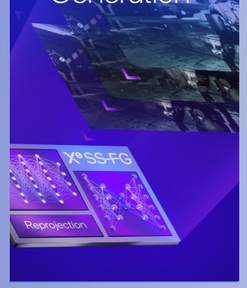
Next-gen NPU 5



New Xe3 GPU



XeSS Multi-Frame Generation



Integrated Thunderbolt™ 4

Enhanced Intel Thread Director & power management

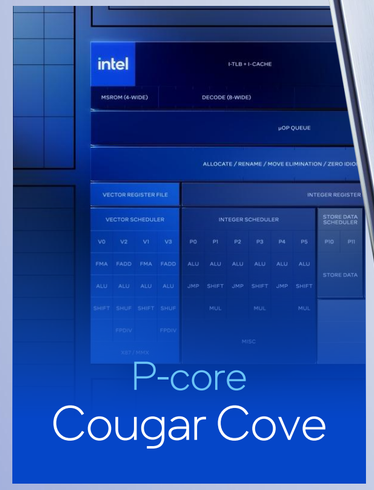


Integrated Intel® Wi-Fi 7 (R2) & Dual Intel® Bluetooth® Core 6

Up to **12** Xe-cores



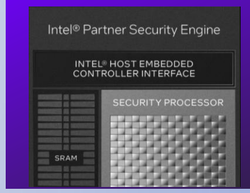
E-core Darkmont



P-core Cougar Cove



Up to **12 lanes** PCIe gen 5

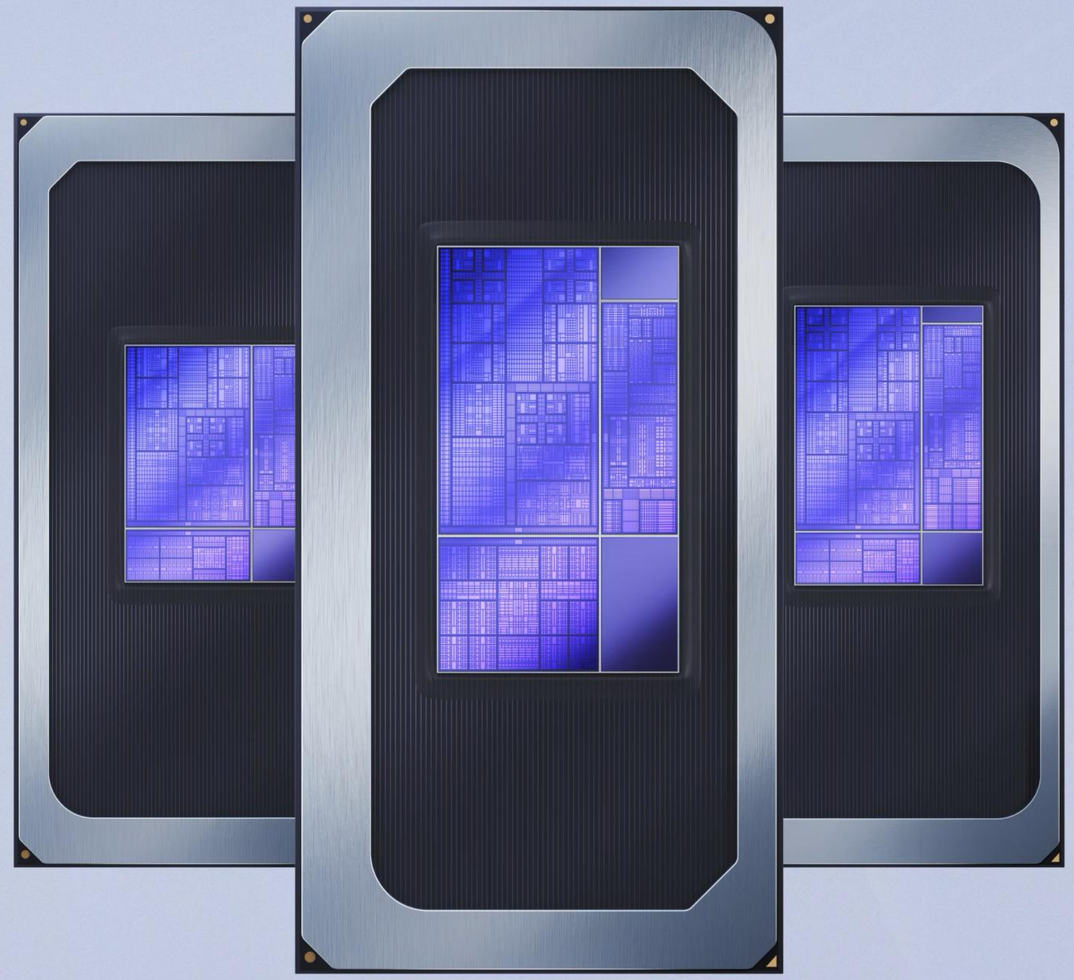


Intel® Total Storage Encryption



New LPCAMM Support

intel



Intel® Core™ Ultra Series 3

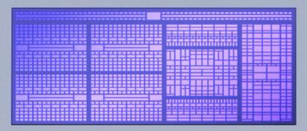
Built to scale

More Designs

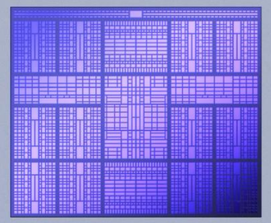
More Price points

More Experiences

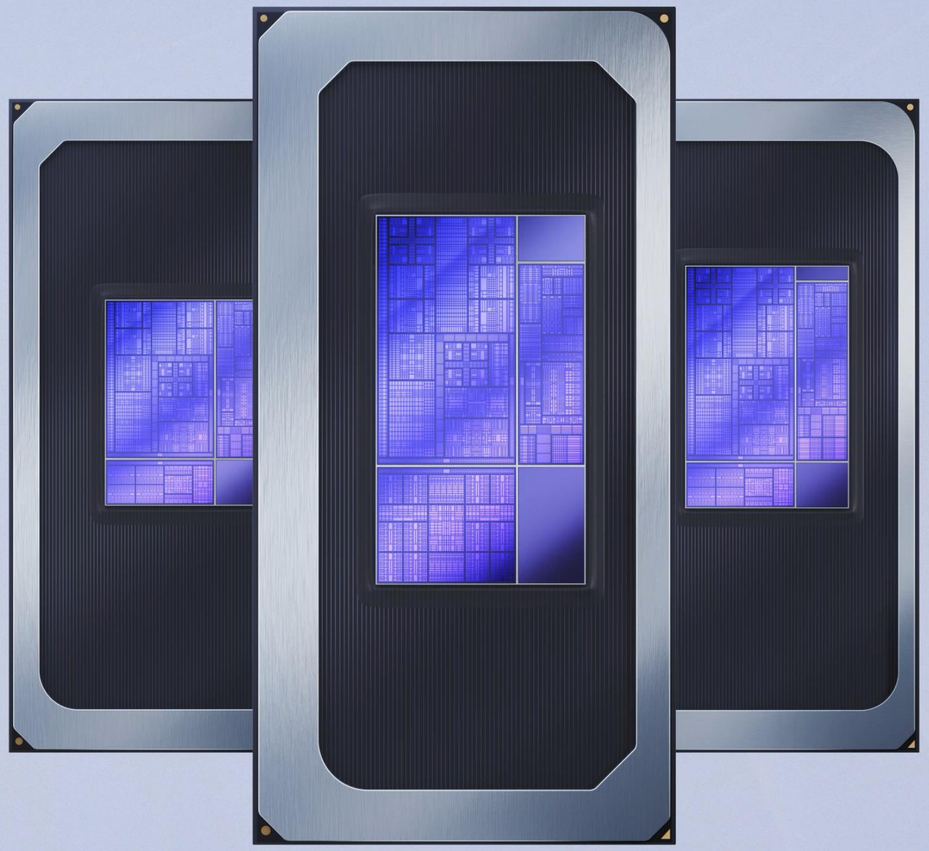
GPU Tile



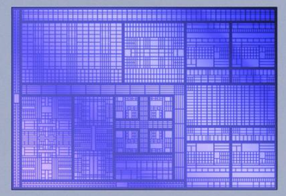
4 Xᵉ cores



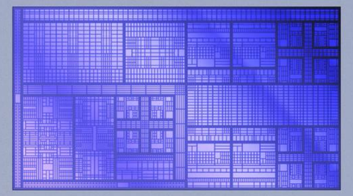
12 Xᵉ cores



Compute Tile

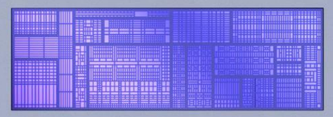


8 cores

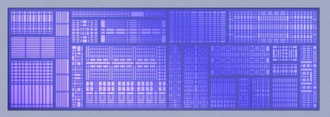


16 cores

Platform Controller Tile



12 PCIe lanes



20 PCIe lanes

Intel® Core™ Ultra Series 3

Die Package Configurations

Compute tile

Built on intel 18A

CPU

up to **8** cores

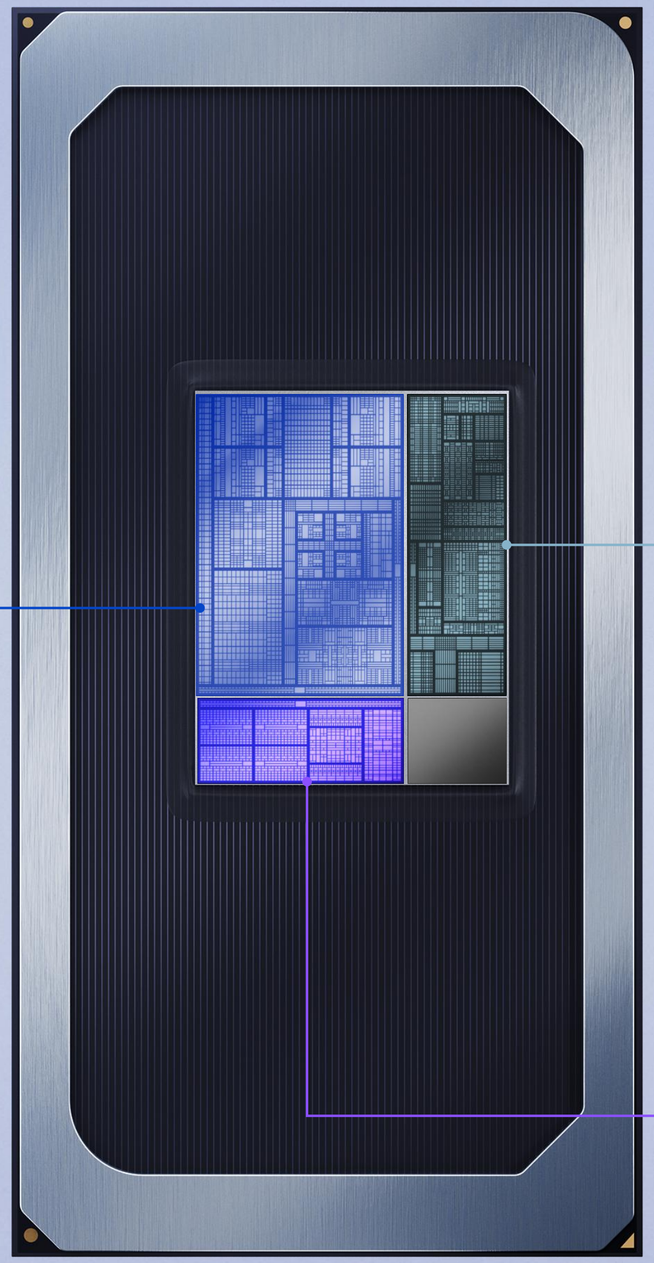
- **P-cores**: 4 Cougar Cove
- **LP E-cores**: 4 Darkmont

xPU

- **IPU 7.5**: Image signal processor
- **NPU 5**
- **Xe**: Media & display engines

Memory

- Up to **7467 MT/s** LPDDR5x
- Up to **6400 MT/s** DDR5
- **8MB** Memory-side cache



Platform controller tile

Built on External

I/O

- **12** PCIe lanes
- **8x** PCIe gen 4
- **4x** PCIe gen 5
- Up to **4x** Thunderbolt™ 4
- 2x USB 3.2
  8x USB 2.0

Connectivity

- Intel® Wi-Fi 7 (R2)
- Intel® Bluetooth® Core 6.0

GPU tile

Built on intel 3

- **Xe3** Architecture
- **4** Xe-cores
- **4** Ray tracing units

Intel® Core™ Ultra Series 3

Die Package Configurations

Compute tile

Built on intel 18A

CPU

up to **16** cores

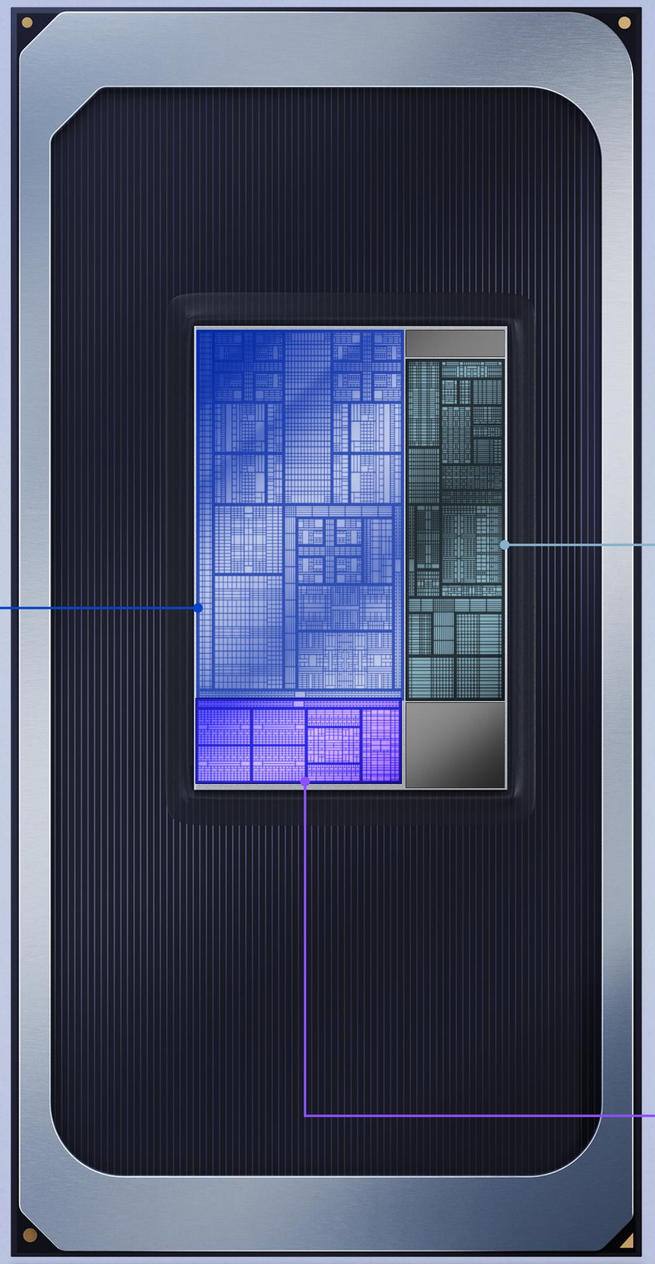
P-cores	E-cores	LP E-cores
4 Cougar Cove	8 Darkmont	4 Darkmont

xPU

- **IPU 7.5** Image signal processor
- **NPU 5**
- **Xe** Media & display engines

Memory

- Up to **8533 MT/s** LPDDR5x
- Up to **7200 MT/s** DDR5
- **8MB** Memory-side cache



Platform controller tile

Built on External

I/O

- **20** PCIe lanes
- **8x** PCIe gen 4
- **12x** PCIe gen 5
- Up to **4x** Thunderbolt™ 4
- 2x USB 3.2
  8x USB 2.0

Connectivity

- Intel® Wi-Fi 7 (R2)
- Intel® Bluetooth® Core 6.0

GPU tile

Built on intel 3

- **Xe3** Architecture
- **4** Xe-cores
- **4** Ray tracing units

Intel® Core™ Ultra Series 3

Die Package Configurations

Compute tile

Built on intel 18A

CPU

up to **16** cores

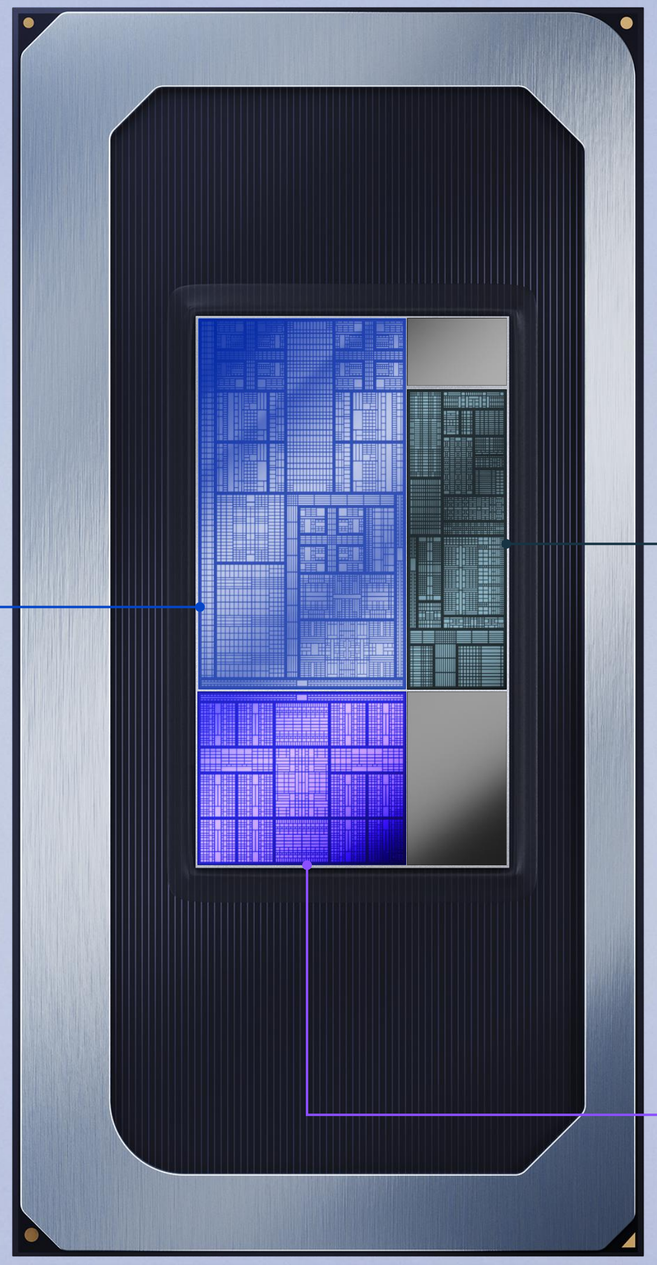
P-cores	E-cores	LP E-cores
4 Cougar Cove	8 Darkmont	4 Darkmont

xPU

- **IPU 7.5** Image signal processor
- **NPU 5**
- **Xe** Media & display engines

Memory

- Up to **9600 MT/s** LPDDR5x
- **8MB** Memory-side cache



Platform controller tile

Built on External

I/O

- **12** PCIe Lanes
- **8x** PCIe gen 4
- **4x** PCIe gen 5
- Up to **4x** Thunderbolt™ 4
- 2x USB 3.2
  8x USB 2.0

Connectivity

- Intel® Wi-Fi 7 (R2)
- Intel® Bluetooth® Core 6.0

GPU tile

Built on External

- **Xe3** Architecture
- **12** Xe-cores
- **12** Ray tracing units

Intel® Core™ Series 3

Die Package Configuration

Platform controller tile

Built on External

I/O

6
PCIe lanes

6x
PCIe gen 4

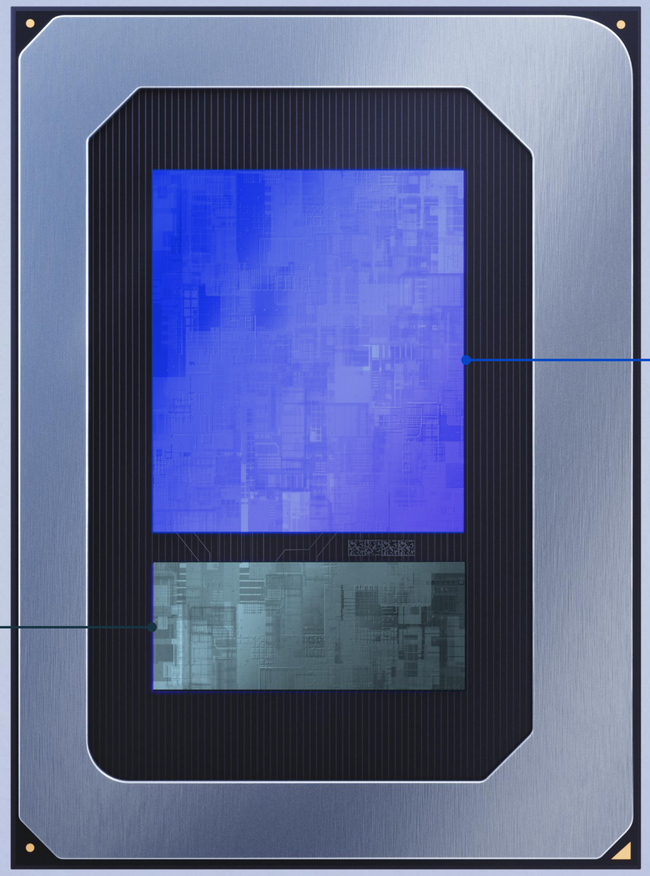
Up to
2x
Thunderbolt™ 4

2x USB 3.2
8x USB 2.0

Connectivity

Intel®
Wi-Fi 7 (R2)

Intel®
Bluetooth®
Core 6.0



Compute & GPU tile

Built on intel 18A

CPU

up to
6
cores

P-cores
2
Cougar Cove

LP E-cores
4
Darkmont

xPU

NPU 5

Xe
Media & display engines

Memory

Up to
7467 MT/s
LPDDR5x

Up to
6400 MT/s
DDR5

4MB
Memory-side cache

GPU

Xe3
Architecture

2
Xe-cores

Intel® Core™ Ultra Series 3

Our best processor yet in impressively thin and light laptops



intel evo EDITION | intel vPRO

Get as much as **27** Hours Battery Life

Up to **77%** Faster Graphics

Up to **60%** Faster CPU Performance

Up to **2x** Faster AI Performance

Individual system results will vary significantly with different use, battery capacity and other factors. Details at intel.com/performanceindex.


Unmatched Scale
With 200+ Designs
Windows11
VALORANT
HONOR
Lenovo
ASUS

Intel® Core™ Ultra Series 3

Available in January

Pre-orders starting Jan 6th



Visualization for illustrative purposes only.

Intel® Core™ Ultra Series 3 Processors

Processor Number	CPU			NPU	GPU				Memory		Power	
	Total Cores &Threads	P-core Max Turbo Freq (GHz)	Intel® Smart Cache LLC (MB)	TOPS	Brand	Total Xe-cores	Max Freq (GHz)	TOPS	Maximum Memory Speed (MT/s)	Maximum Memory Capacity (GB)	Processor Base Power	Maximum Turbo Power (W)
Intel® Core™ Ultra X9 388H	16	5.1	18	50	Intel® Arc™ B390 Intel® Arc™ Pro B390	12	2.5	122	LP5/X 9600	96 (LP5/x)	25W	65[7],80[7]
Intel® Core™ Ultra 9 386H	16	4.9	18	50	Intel Graphics	4	2.5	40	LP5/X 8533 DDR5 7200	96 (LP5/x) 128 (DDR5)		65[7],80[7]
Intel® Core™ Ultra X7 368H	16	5.0	18	50	Intel® Arc™ B390 Intel® Arc™ Pro B390	12	2.5	122	LP5/X 9600	96 (LP5/x)		65[7],80[7]
Intel® Core™ Ultra 7 366H	16	4.8	18	50	Intel Graphics	4	2.5	40	LP5/X 8533 DDR5 7200	96 (LP5/x) 128 (DDR5)		65[7],80[7]
Intel® Core™ Ultra 7 365	8	4.8	12	49	Intel Graphics	4	2.5	40	LP5/X 6800 DDR5 6400			55
Intel® Core™Ultra X7 358H	16	4.8	18	50	Intel® Arc™ B390	12	2.5	122	LP5/X9600	96 (LP5/x)		65[7],80[7]
Intel® Core™Ultra 7 356H	16	4.7	18	50	Intel Graphics	4	2.45	40	LP5/X 8533 DDR5 7200	96 (LP5/x) 128 (DDR5)		65[7],80[7]
Intel® Core™Ultra 7 355	8	4.7	12	49	Intel Graphics	4	2.5	40	LP5/X 6800 DDR5 6400			55
Intel® Core™Ultra 5 338H	12	4.7	18	47	Intel® Arc™ B370 Intel® Arc™ Pro B370	10	2.4	98	LP5/X 8533	96 (LP5/x)	25W	65[7],80[7]
Intel® Core™Ultra 5 336H	12	4.6	18	47	Intel Graphics	4	2.3	37	LP5/X 8533 DDR5 7200			65[7],80[7]
Intel® Core™Ultra 5 335	8	4.6	12	47	Intel Graphics	4	2.45	40	LP5/X 6800 DDR5 6400	96 (LP5/x) 128 (DDR5)		55
Intel® Core™Ultra 5 325	8	4.5	12	47	Intel Graphics	4	2.45	40				55
Intel® Core™Ultra 5 332	6	4.4	12	46	Intel Graphics	2	2.3	18				55
Intel® Core™Ultra 5 322	6	4.4	12	46	Intel Graphics	2	2.3	18				55

For more information visit ark.intel.com

Intel® Core™ Series 3 Processors

Brand Level	CPU Total Cores &Threads	NPU TOPS	GPU Graphics Brand	GPU Total Xe Cores
Intel Core 7	Up to 6C	Up to 18 TOPS	Intel Graphics	Up to 2Xe
Intel Core 7				
Intel Core 5				
Intel Core 5				
Intel Core 3				

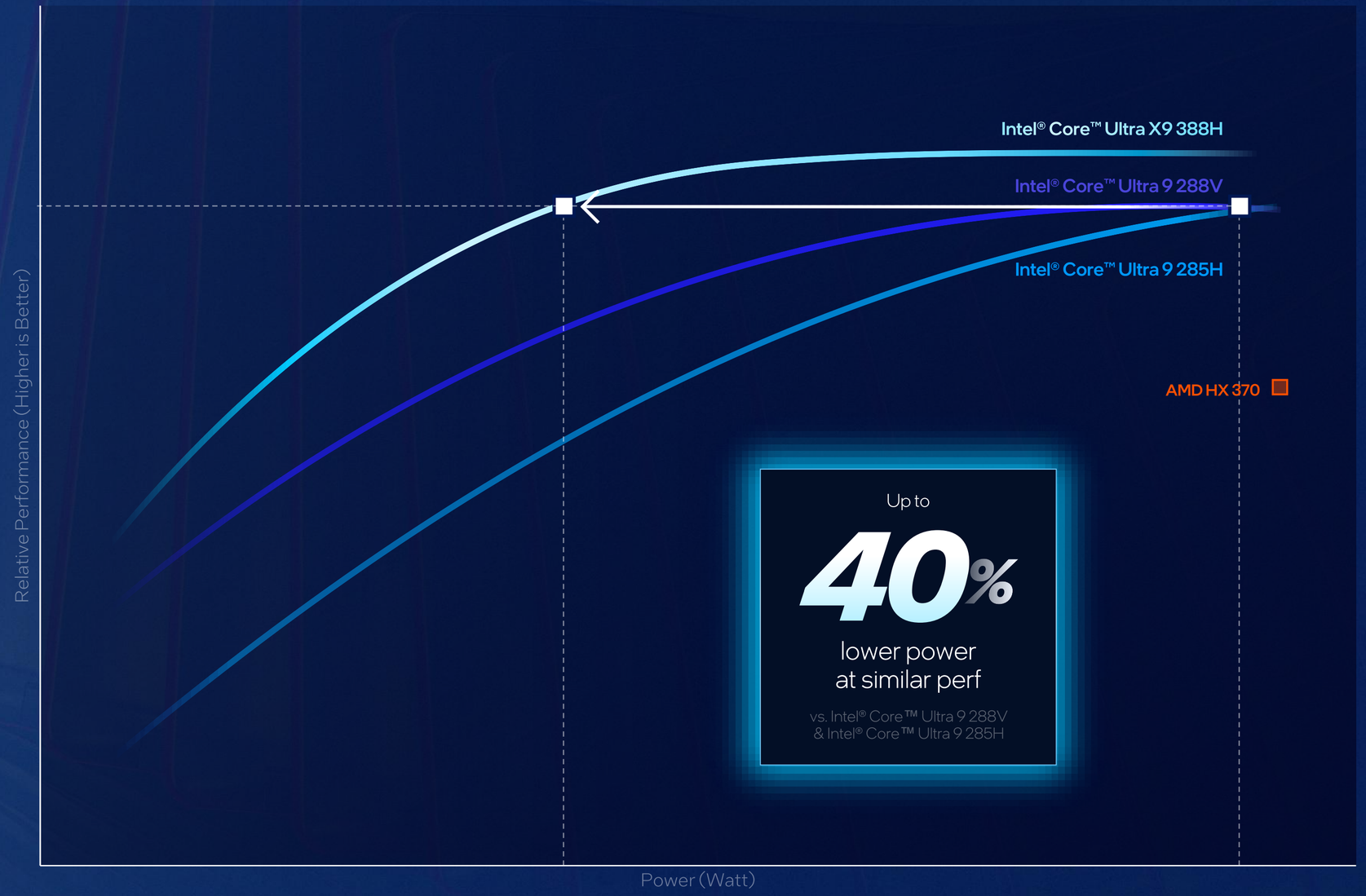
Performance & Efficiency



Intel® Core™ Ultra Series 3

Built for Efficiency

Cinebench 2024 Single Core

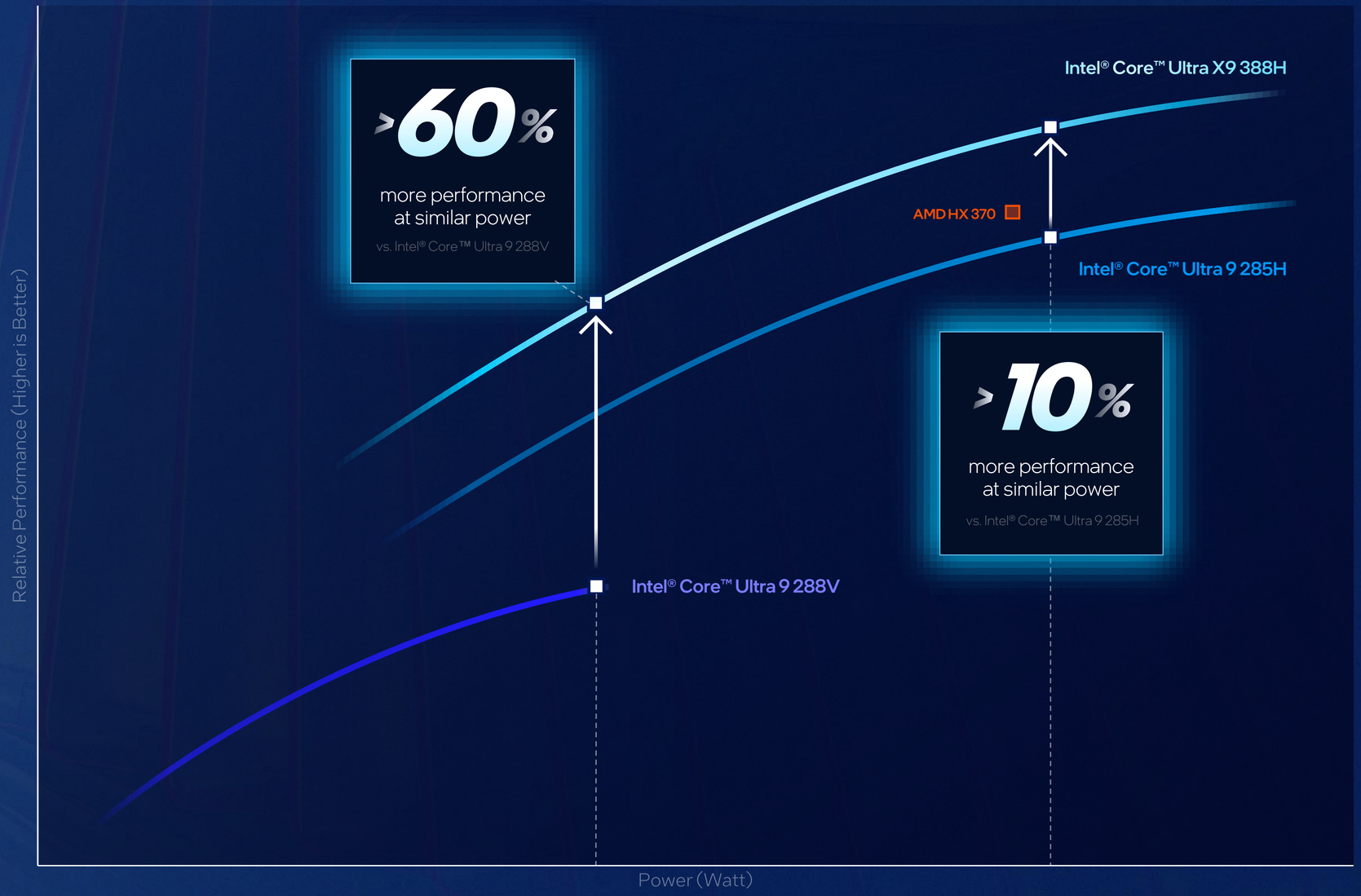


Details at intel.com/performanceindex. Results may vary.

Intel® Core™ Ultra Series 3

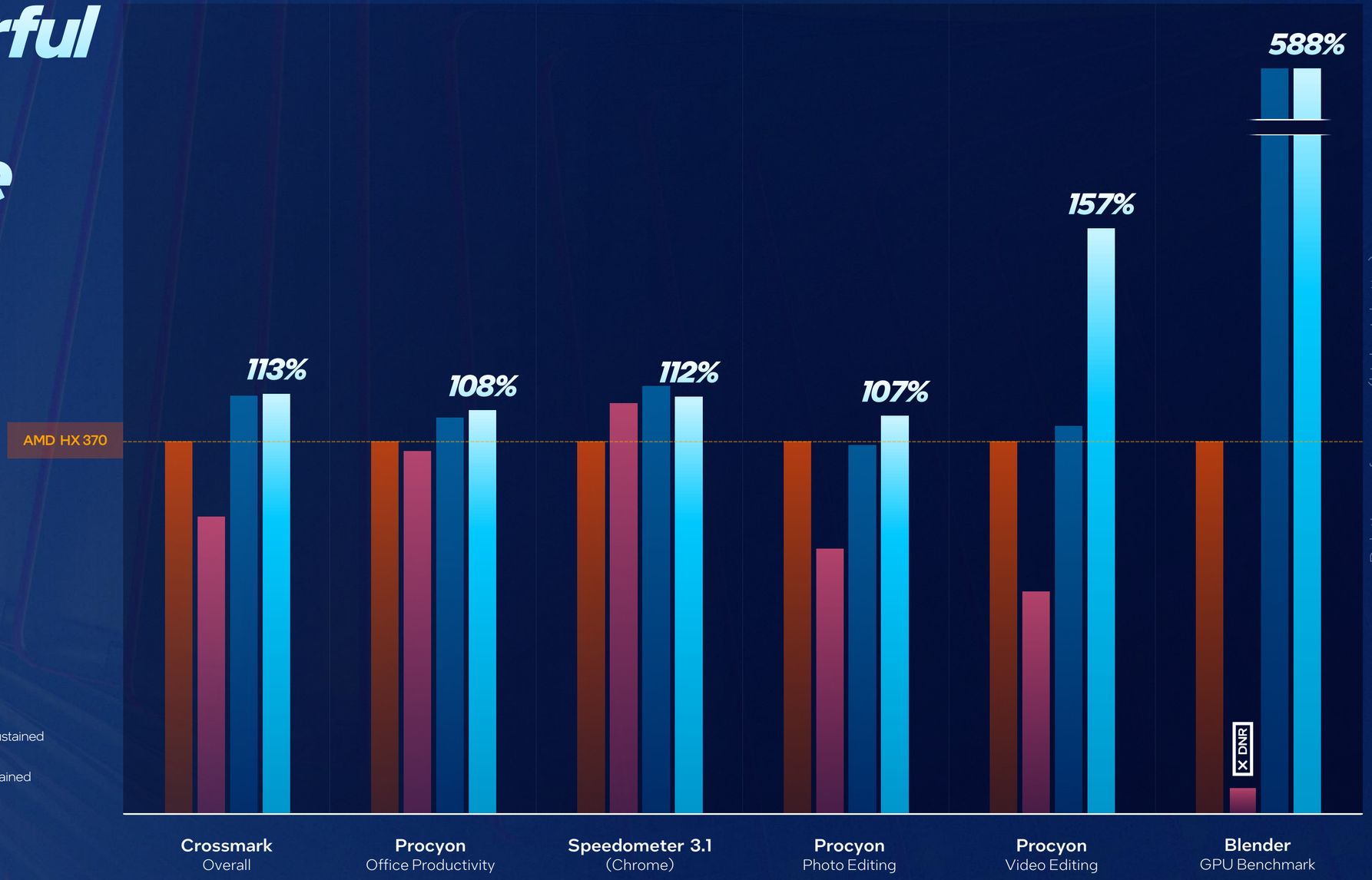
Scaling Performance with Efficiency

Cinebench 2024 Multi Core



Details at intel.com/performanceindex. Results may vary.

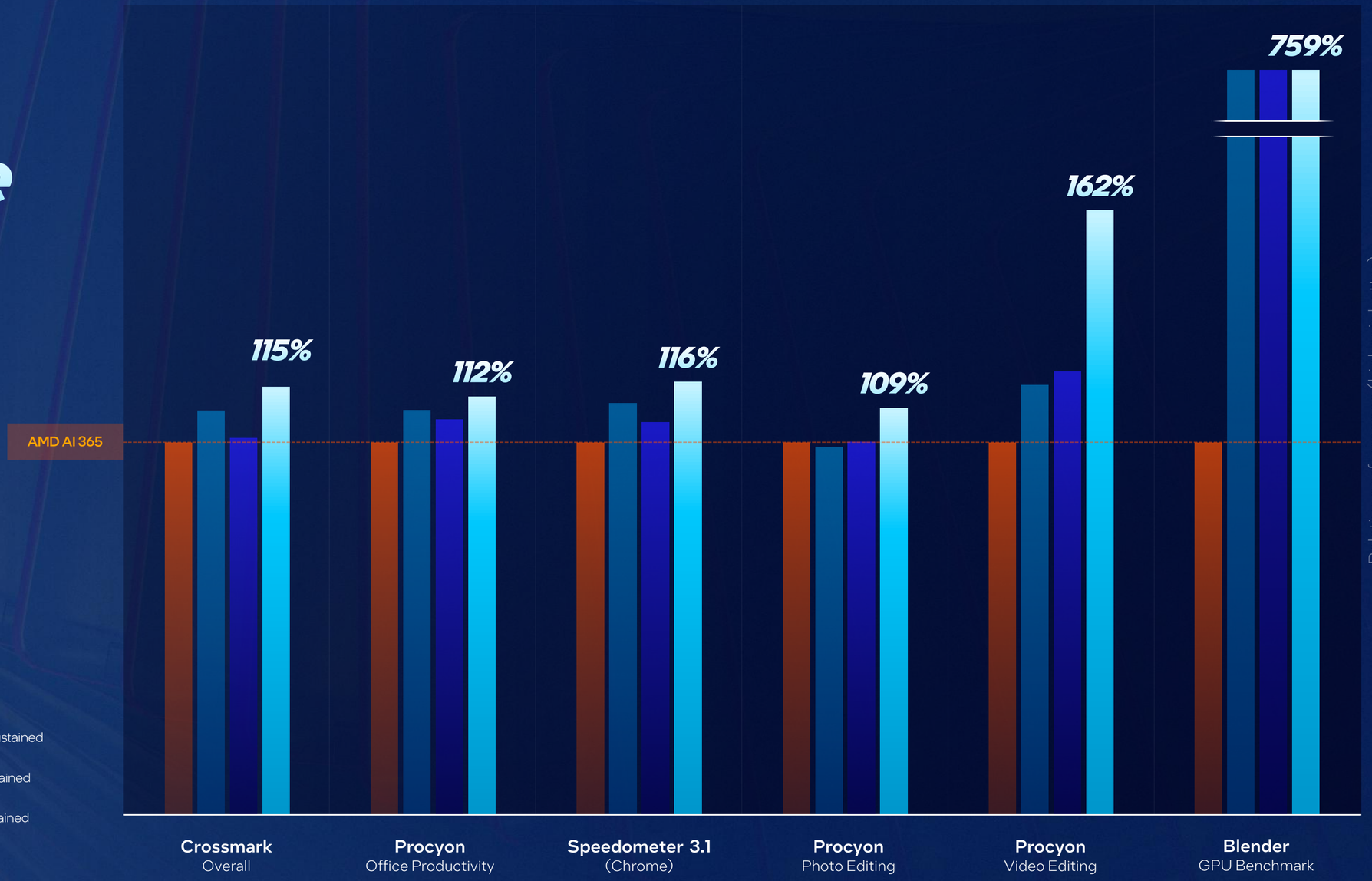
Thin & Powerful Productivity Performance



- **Intel® Core™ Ultra X9 388H** | Reference Platform, 45W sustained
- **Intel® Core™ Ultra 9 285H** | Reference Platform, 45W sustained
- **Qualcomm 84-100** | Customer Chassis , ~50W sustained
- **AMD HX 370** | Customer Chassis, 53W sustained

Details at intel.com/performanceindex. Results may vary.

Thin & Light Productivity Performance



- **Intel® Core™ Ultra X9 388H** | Reference Platform, 25W sustained
- **Intel® Core™ Ultra 9 288V** | Reference Platform, 25W sustained
- **Intel® Core™ Ultra 7 255H** | Reference Platform, 25W sustained
- **AMD AI 365** | Customer Chassis, 22W sustained

Details at intel.com/performanceindex. Results may vary.

Power Efficient Platform

Built for lasting battery life



Intelligent Display Technology

Realtime AI upscaling to deliver low-power vivid visuals

Low power, high quality video conferencing

Dynamic HDR and lowlight correction done on low power IPU

Long lasting and latest connectivity

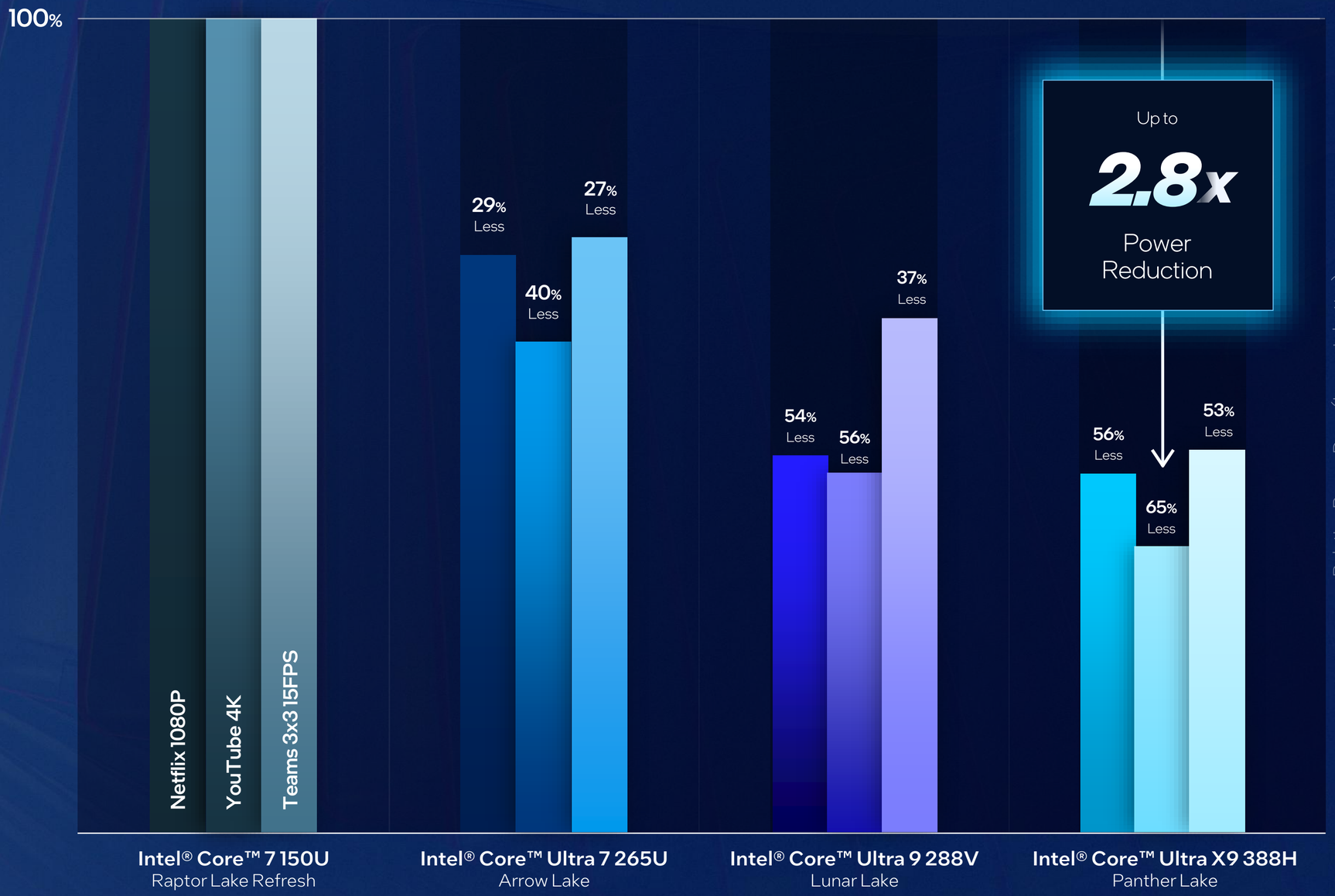
Low-power Intel® Wi-Fi 7 (R2) and Bluetooth 6.0

Context-aware charging

For the longest possible battery life, both long and short term

Most Efficient x86 Processor

Significant **SOC power reduction** achieved within 3 years time



Among x86-based thin & light laptops as of Dec. 2025, refers to Intel Core Ultra Series 3 processors, based on the unique architecture and impressive performance even at lower power compared to prior generation and competition processors. See intel.com/performanceindex for details. Results may vary.

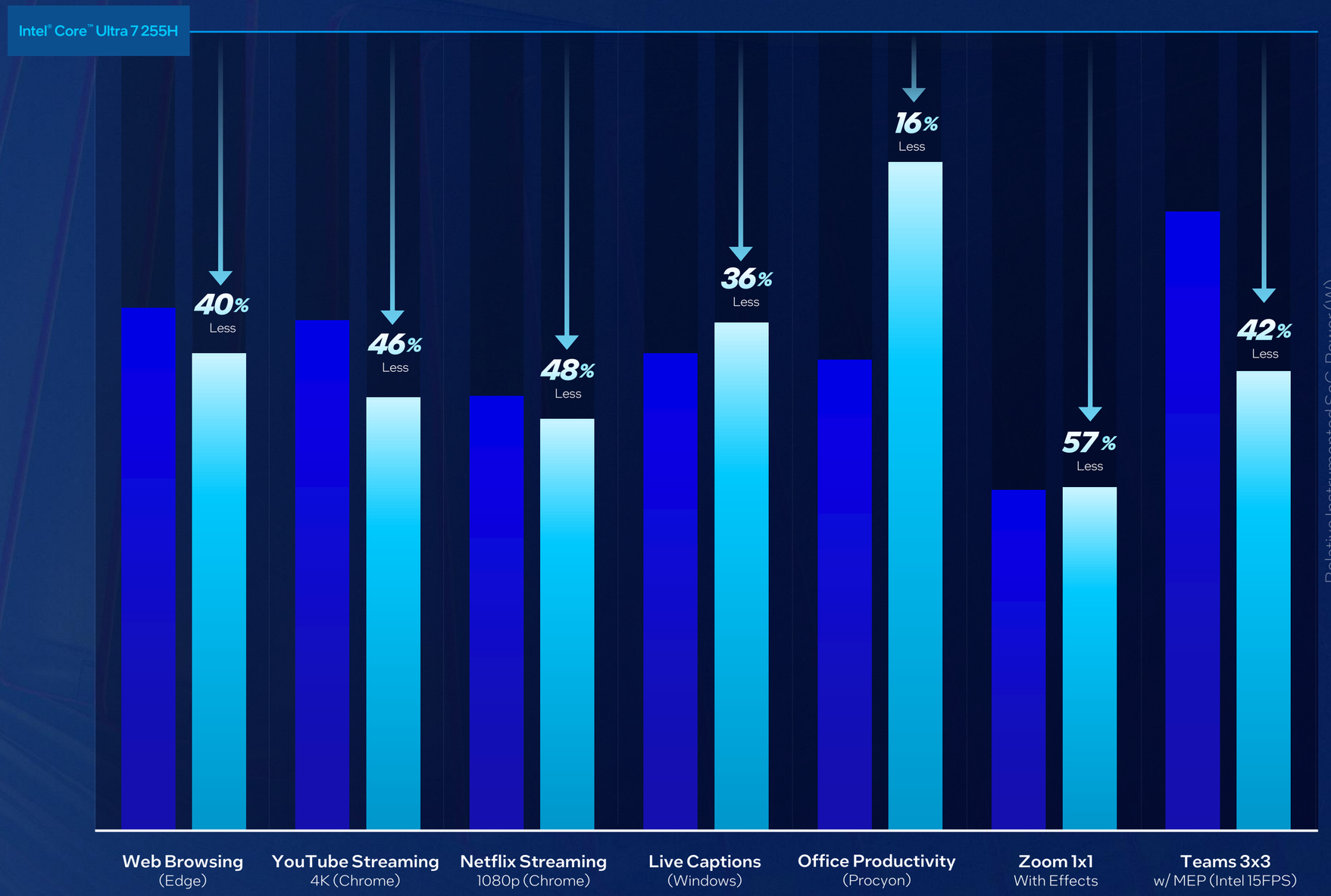
Continuing to Slash x86 Power

Up to

57%

Lower SOC Power

vs. Intel® Core™ Ultra 200H series



- Intel® Core™ Ultra X9 388H
- Intel® Core™ Ultra 9 288V
- Intel® Core™ Ultra 7 255H

Details at intel.com/performanceindex. Results may vary.

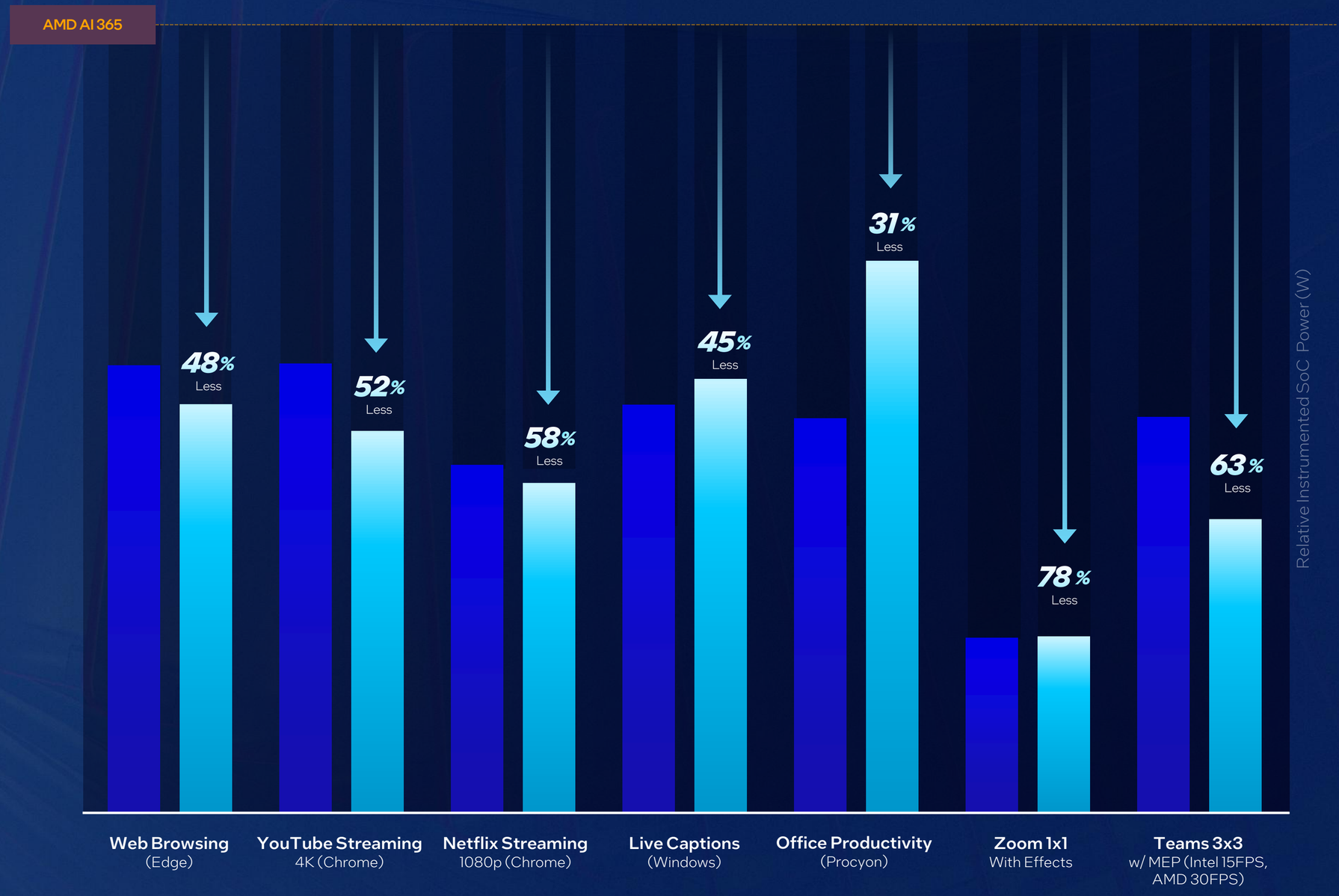
Leading x86 Power Efficiency

Up to

78%

Lower SOC Power

vs. AMD AI 365



- Intel® Core™ Ultra X9 388H
- Intel® Core™ Ultra 9 288V
- AMD AI 365

Among x86-based thin & light laptops as of Dec. 2025, refers to Intel Core Ultra Series 3 processors, based on the unique architecture and impressive performance even at lower power compared to prior generation and competition processors. See intel.com/performanceindex for details. Results may vary.



The x86 Battery Life King

With Intel® Core™ Ultra X9 388H

Lenovo IdeaPad Reference Design - 99Whr, 2.8k OLED

27 hours

Netflix Streaming

17 hours

UL Procyon® Battery Life:
Office Productivity

9 hours

Microsoft Teams 3x3
w/ Windows Studio Effects

Visualization for illustrative purposes only.
Among x86-based thin & light laptops as of Dec. 2025, refers to Intel Core Ultra Series 3 processors, based on the unique architecture and impressive performance even at lower power compared to prior generation and competition processors to enable superior battery life. Individual system results will vary significantly with different use, battery capacity and other factors. See intel.com/performanceindex for details.

Enables Best Battery Life in x86

Same OEM, similar 14” chassis

Intel® Core™ Ultra X7 358H (x86)	AMD HX Pro 375 (x86)	QCOM 78-100
68Whr, 2.8k OLED	74Whr, 2.8k OLED	59Whr, 2.2k IPS
16.5 hours Netflix Streaming	12.6 hours Netflix Streaming	17.7 hours Netflix Streaming
7.5 hours Microsoft Teams 3x3 w/ Windows Studio Effects	7.3 hours Microsoft Teams 3x3 w/ Windows Studio Effects	6.9 hours Microsoft Teams 3x3 w/ Windows Studio Effects

Among x86-based thin & light laptops as of Dec. 2025, refers to Intel Core Ultra Series 3 processors, based on the unique architecture and impressive performance even at lower power compared to prior generation and competition processors to enable superior battery life. Individual system results will vary significantly with different use, battery capacity and other factors. See intel.com/performanceindex for details.


Gaming
Loading AI NPC dialogue
Marketplace
Generating Personalised Ite
200
400
700
300
400
700
300
400
Custom AI
Starting Server
Stop

Multi-year Arc of Innovation

2021 — intel ARC GRAPHICS

2022 — **Arc A-Series** (Mobile)



2022 — **Arc A-Series** (Desktop)



2022 — **Arc Pro A-Series** (Mobile)



2023 — **Arc Pro A-Series** (Desktop)



2023 — **Intel® Core™ Ultra Series 1** w/ Arc Graphics Built-in



2024 — **Intel® Core™ Ultra Series 2** w/ Arc Graphics Built-in



2025 — **Arc B-Series** (Desktop)



2025 — **Arc Pro B-Series** (Desktop)



State of the Arc



Ray Tracing
Built in



AI Acceleration
with XMX



AI-Enhanced Rendering
with XeSS



Software Ecosystem
Day 0 Drivers

A New Class of Integrated Graphics

Series 3 intel CORE ULTRA X7

Series 3 intel CORE ULTRA X9

with Intel® Arc™ B390

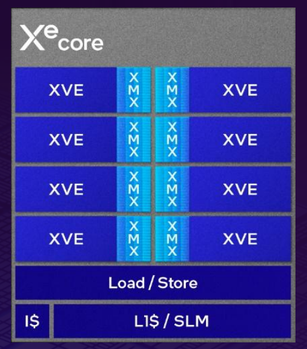


Our Biggest Integrated GPU

Intel® Arc™ B390

12

Xe- cores



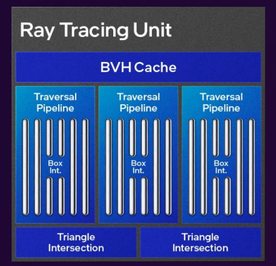
DirectX XII ULTIMATE

120

TOPS

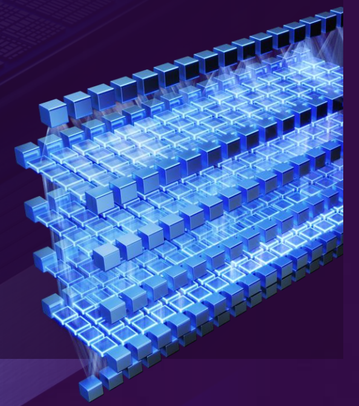
16MB

L2 Cache



96

XMX Engines



12

Enhanced Ray Tracing Units

Generational Performance Leap

77%

Faster Graphics

vs. Intel® Core™ Ultra 9 288V

53%

Faster AI

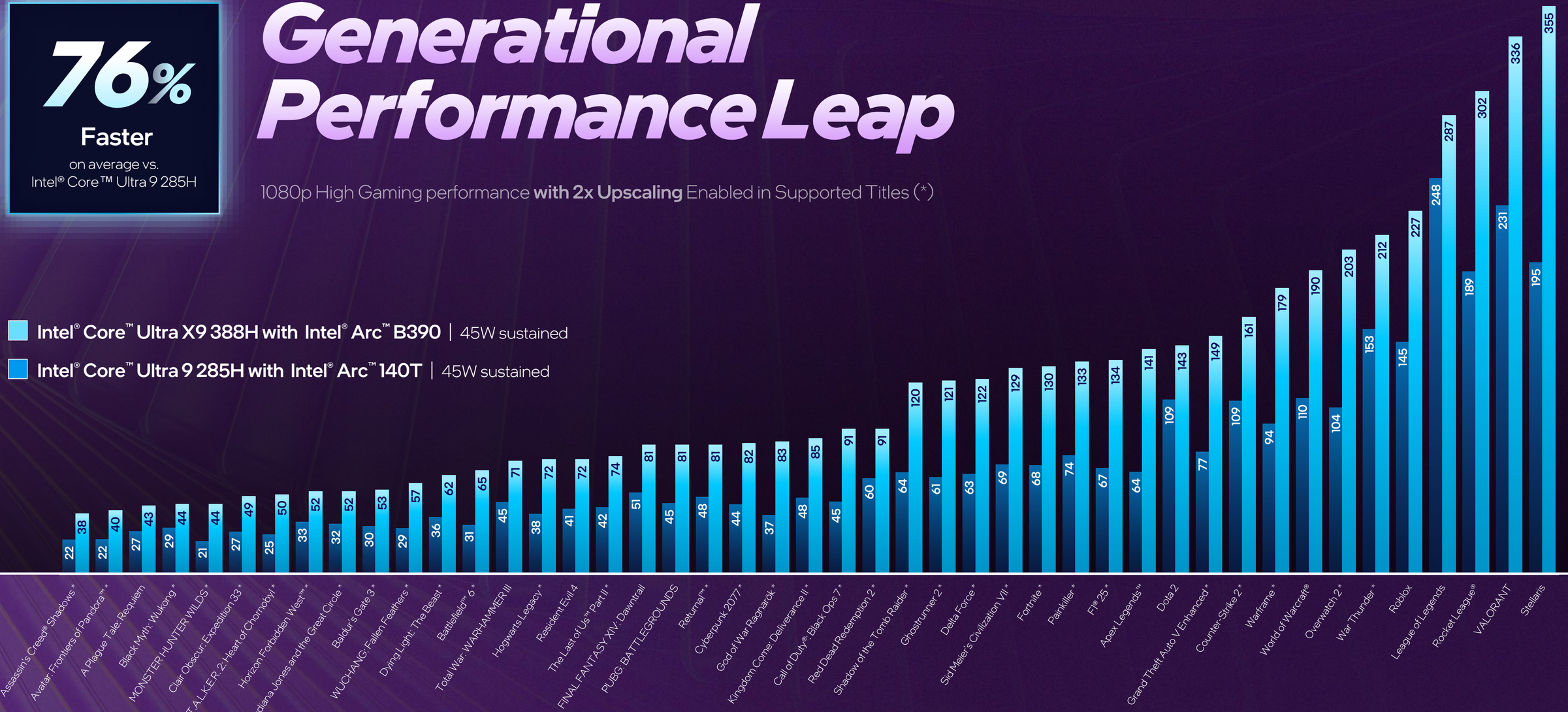
vs. Intel® Core™ Ultra 9 288V



Generational Performance Leap

76%
Faster
on average vs.
Intel® Core™ Ultra 9 285H

1080p High Gaming performance **with 2x Upscaling** Enabled in Supported Titles (*)

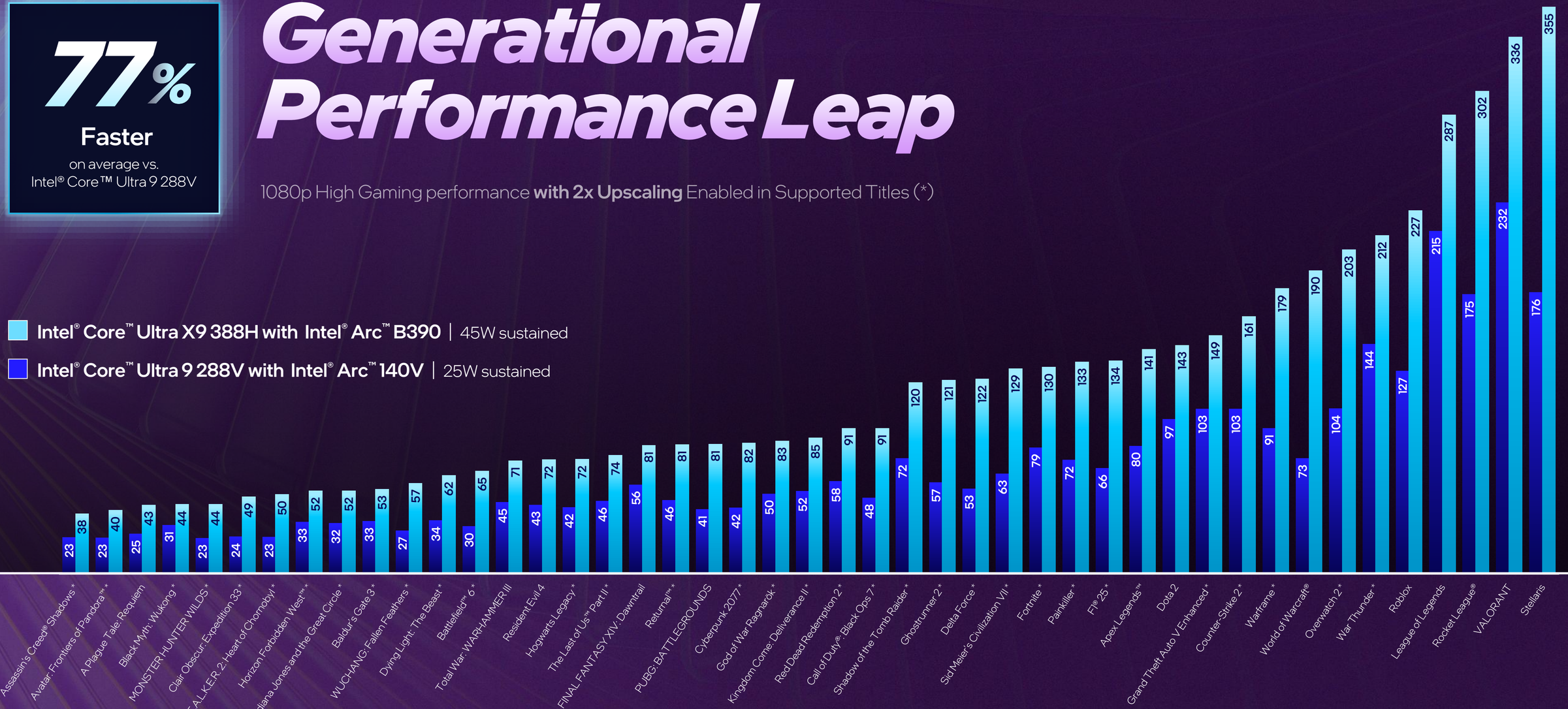


See intel.com/performanceindex for details. Results may vary.

Generational Performance Leap

77%
Faster
on average vs.
Intel® Core™ Ultra 9 288V

1080p High Gaming performance **with 2x Upscaling** Enabled in Supported Titles (*)

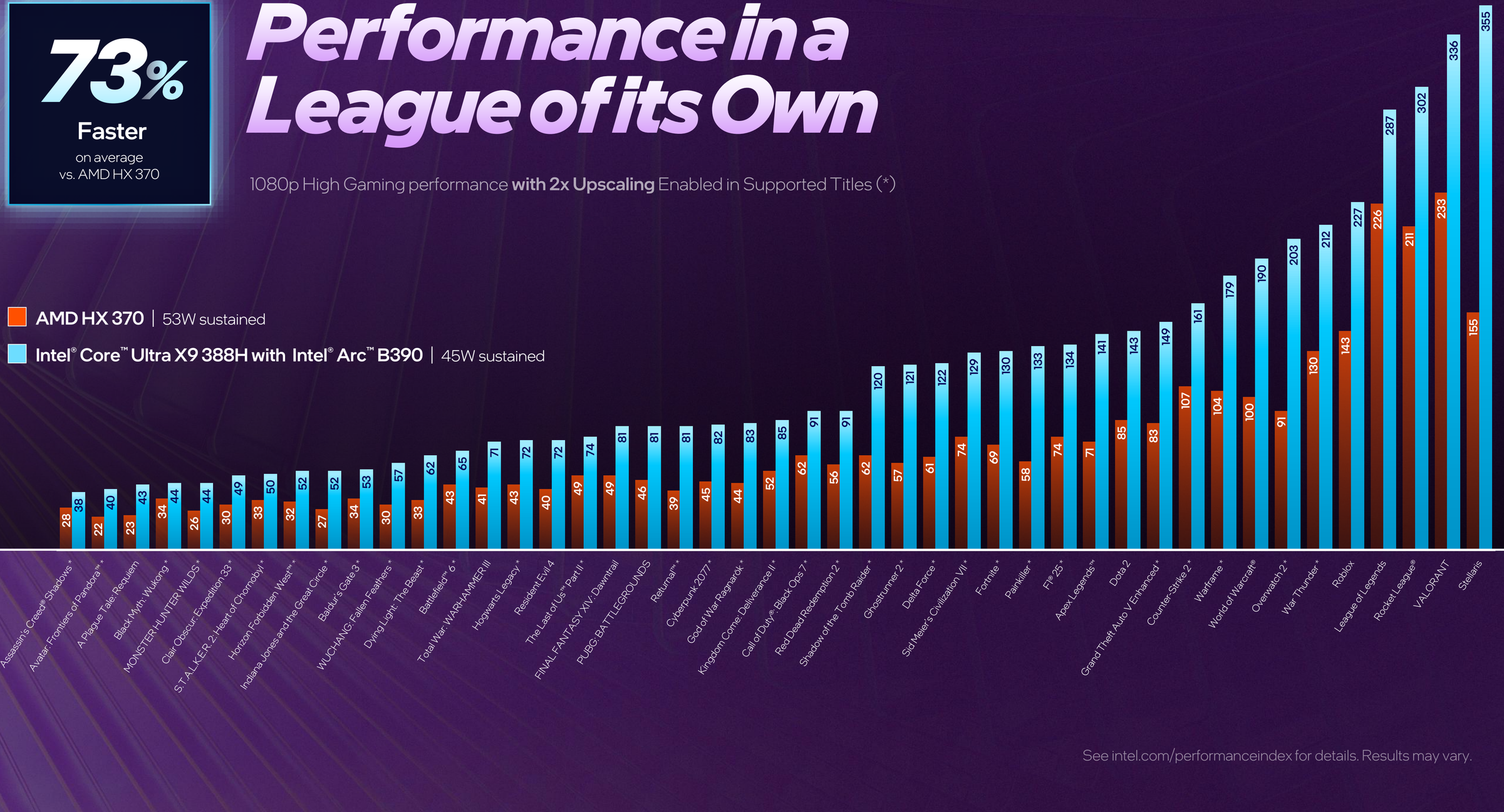


See intel.com/performanceindex for details. Results may vary.

73%
Faster
on average
vs. AMD HX 370

Performance in a League of its Own

1080p High Gaming performance **with 2x Upscaling** Enabled in Supported Titles (*)

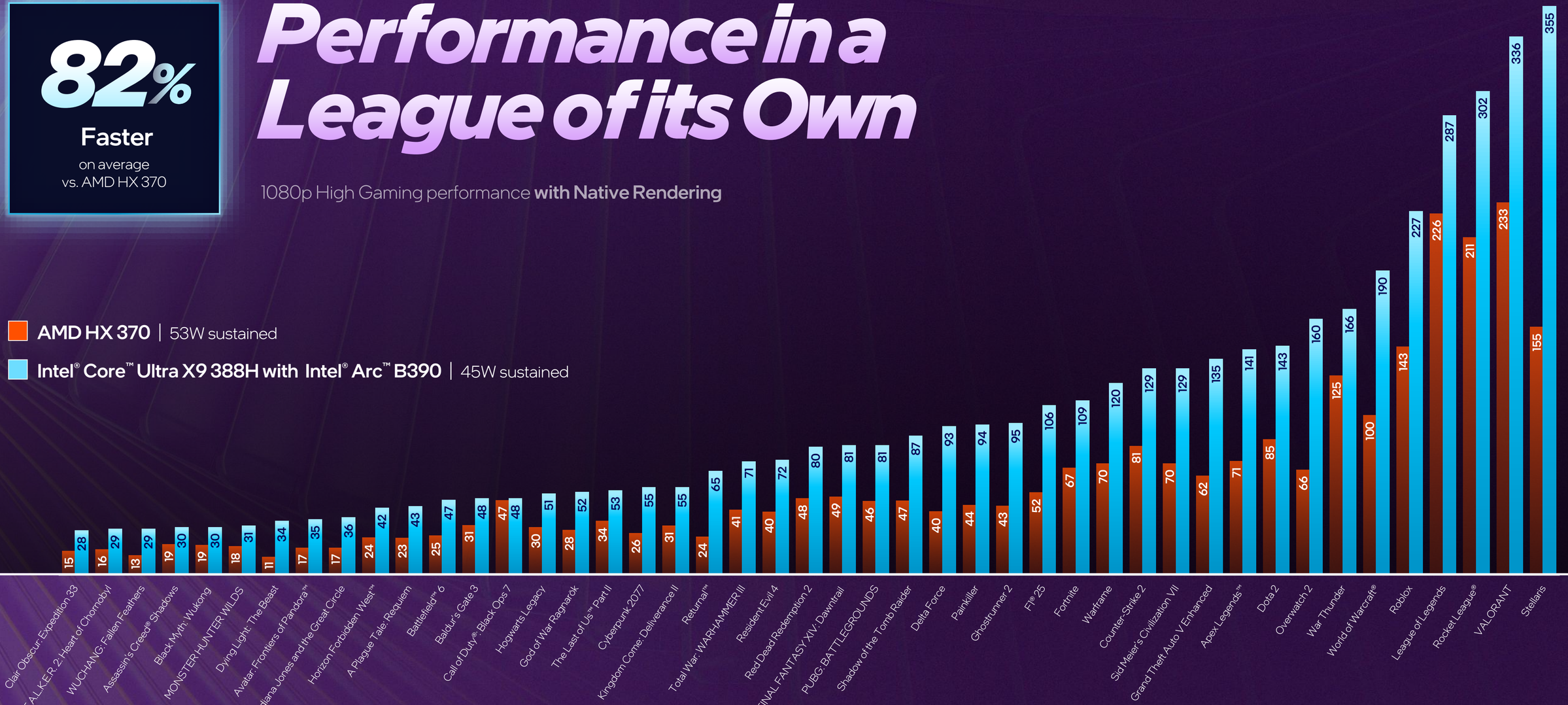


See intel.com/performanceindex for details. Results may vary.

Performance in a League of its Own

82%
Faster
on average
vs. AMD HX 370

1080p High Gaming performance **with Native Rendering**

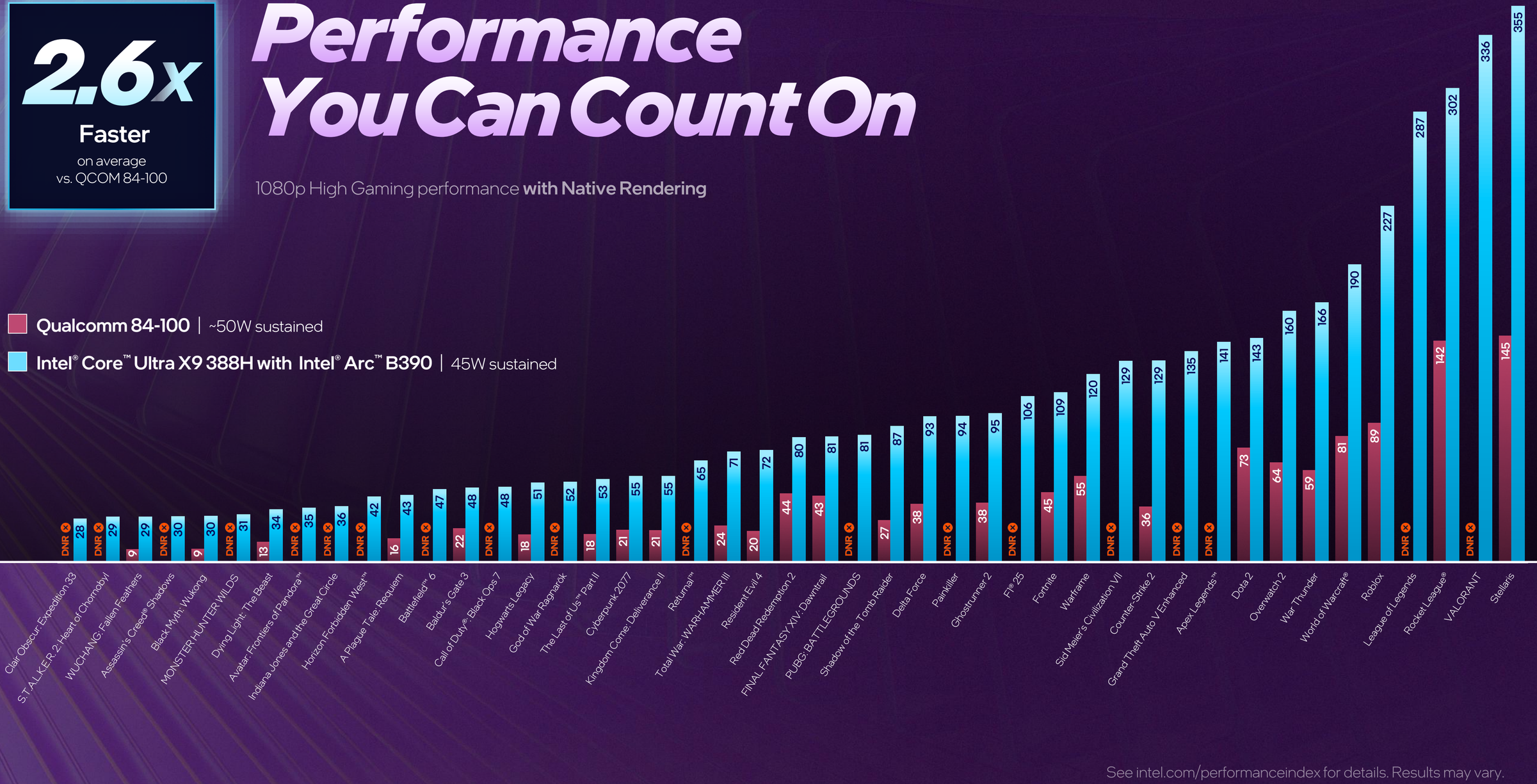


See intel.com/performanceindex for details. Results may vary.

2.6x Faster on average vs. QCOM 84-100

Performance You Can Count On

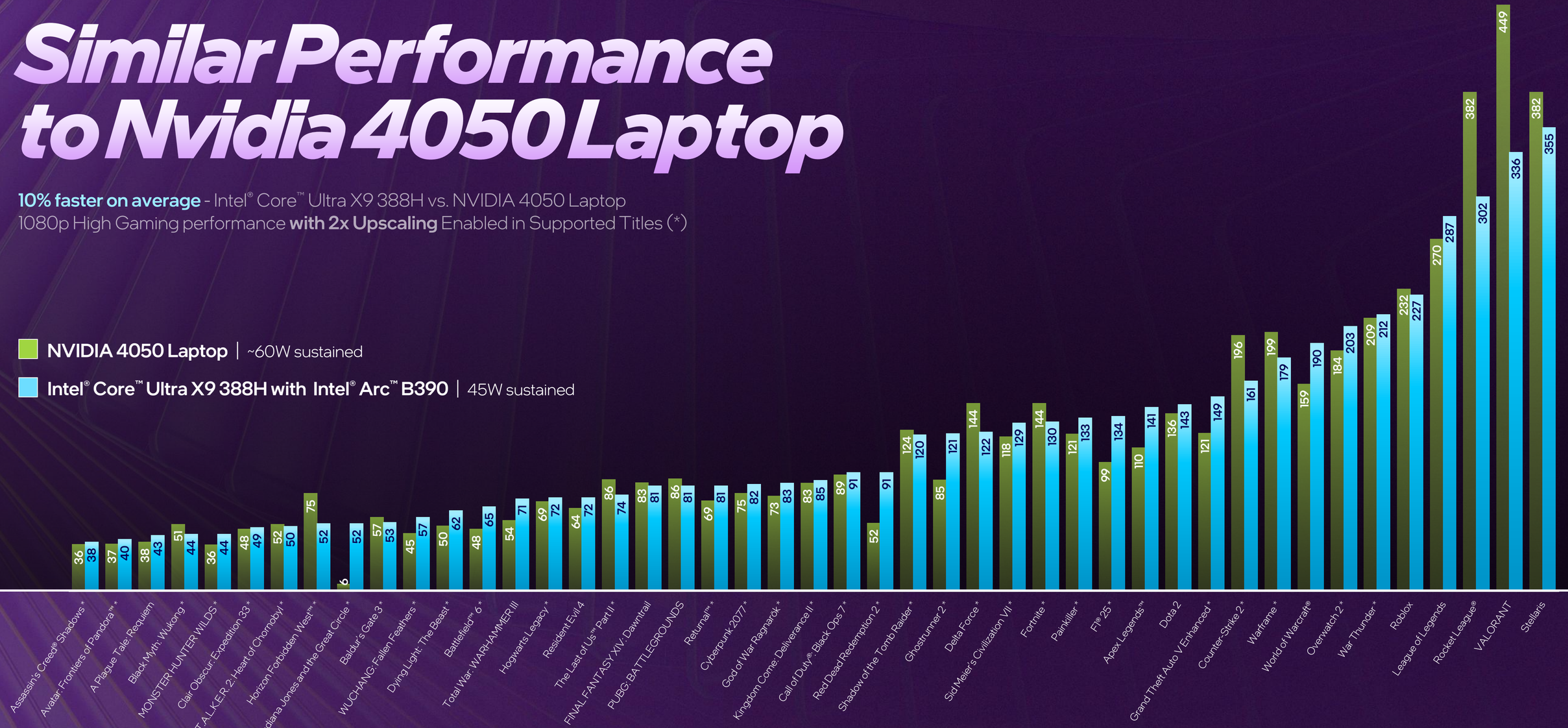
1080p High Gaming performance **with Native Rendering**



See intel.com/performanceindex for details. Results may vary.

Similar Performance to Nvidia 4050 Laptop

10% faster on average - Intel® Core™ Ultra X9 388H vs. NVIDIA 4050 Laptop
1080p High Gaming performance **with 2x Upscaling** Enabled in Supported Titles (*)



See intel.com/performanceindex for details. Results may vary.

Modern Rendering

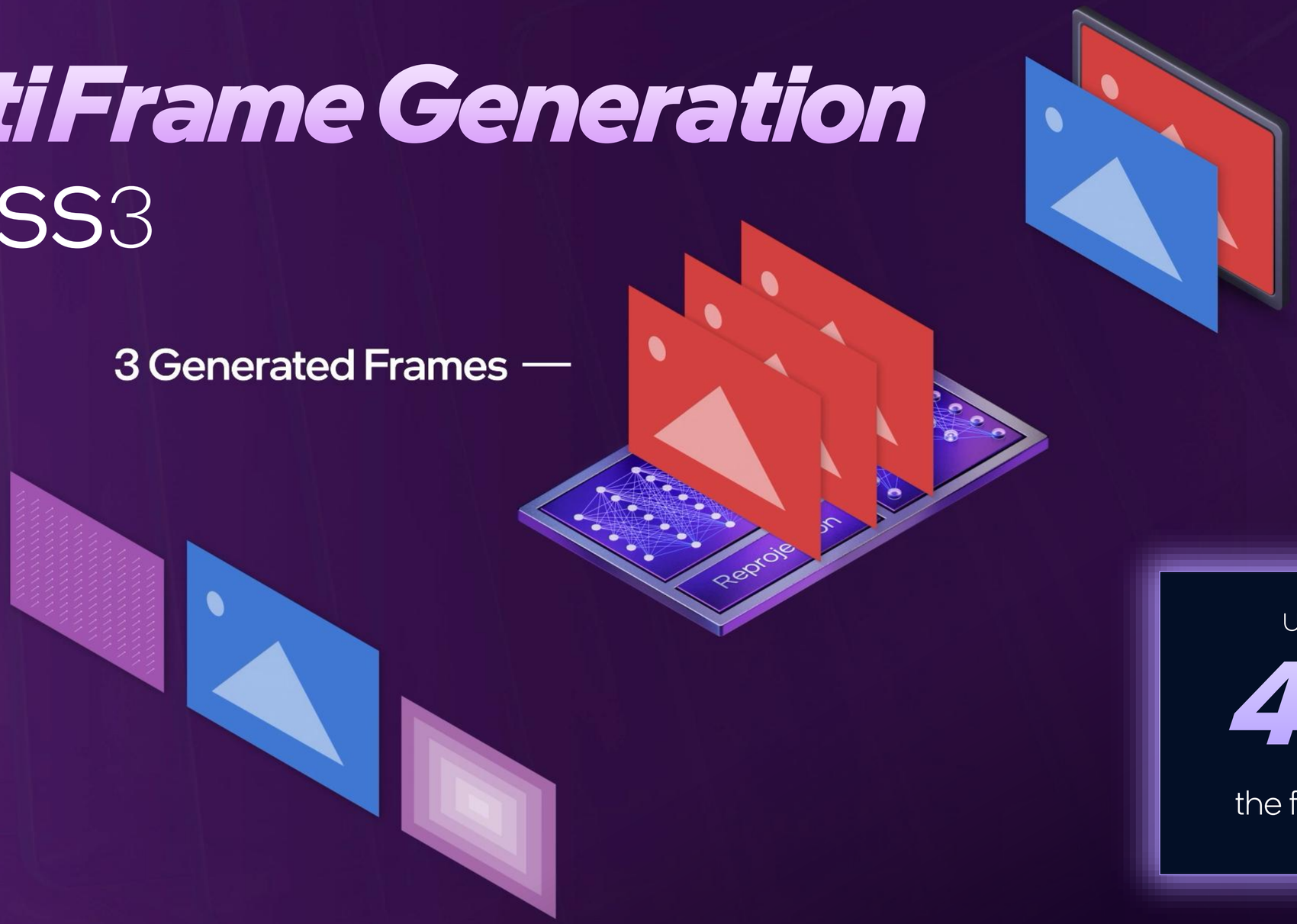
with XeSS 3

Better Lighting	Ray Tracing Global Illumination
Sharper Visuals	High Quality Textures Larger Geometries
Ultimate Smoothness	AI-Based Upscaling AI-Based Multi Frame Gen



Multi Frame Generation

with XeSS 3



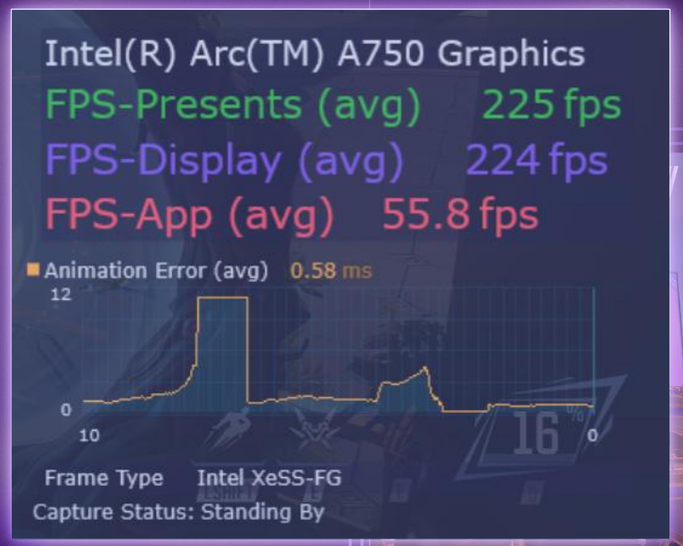
Up to

4x

the frames

Smoothness Metrics

- Frame type differentiation
- Animation error
- Percentiles for all metrics





Leadership Modern Gaming

Cyberpunk 2077





Relative performance | Ultra Settings | RT On | FPS (higher is better)

See intel.com/performanceindex for details. Results may vary.

Leadership Modern Gaming

Battlefield 6





Relative performance | Overkill Settings | FPS (higher is better)

See intel.com/performanceindex for details. Results may vary.

Leadership Modern Gaming

Cyberpunk 2077





Relative performance | Ultra Settings | RT On | FPS (higher is better)

See intel.com/performanceindex for details. Results may vary.

Leadership Modern Gaming

Battlefield 6

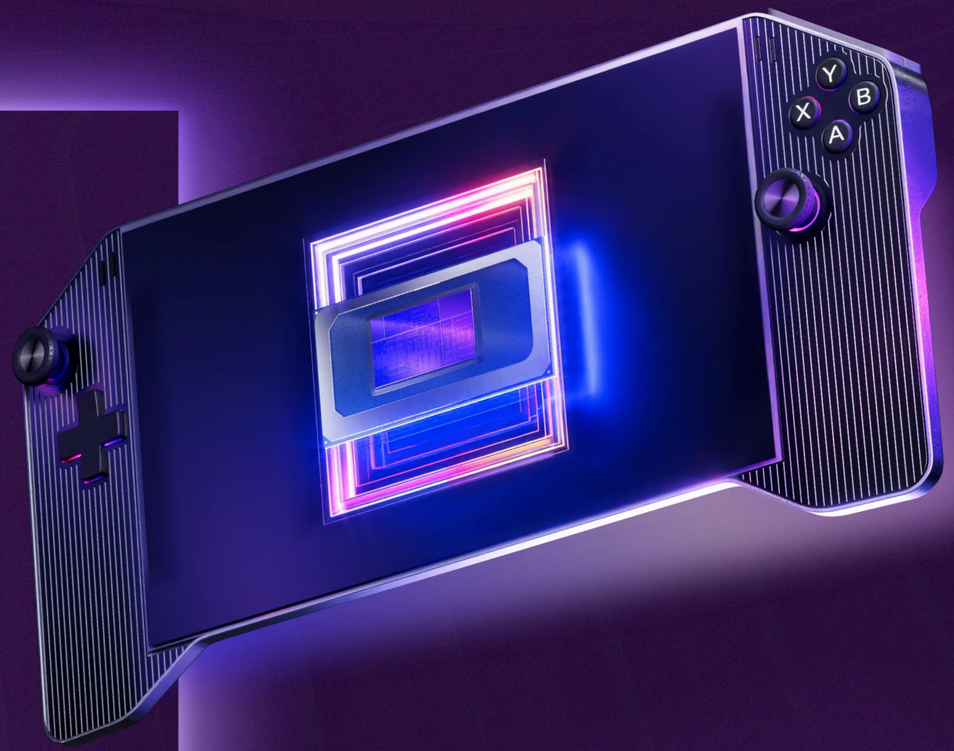




Relative performance | Overkill Settings | FPS (higher is better)

See intel.com/performanceindex for details. Results may vary.

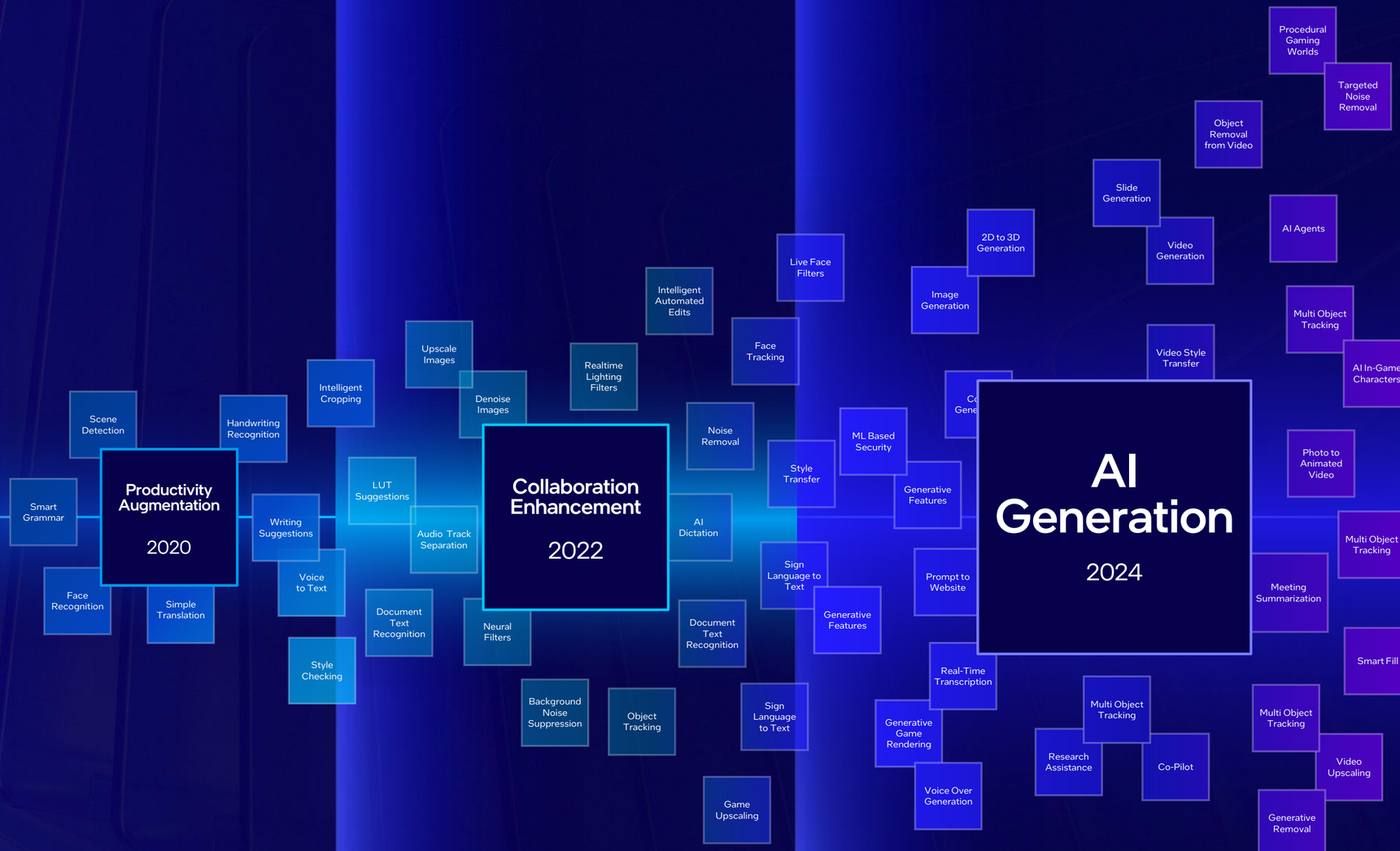
Handhelds Unleashed



Visualization for illustrative purposes only.


Leading AI
Experiences
& Performance

Rapid Evolution of Local AI



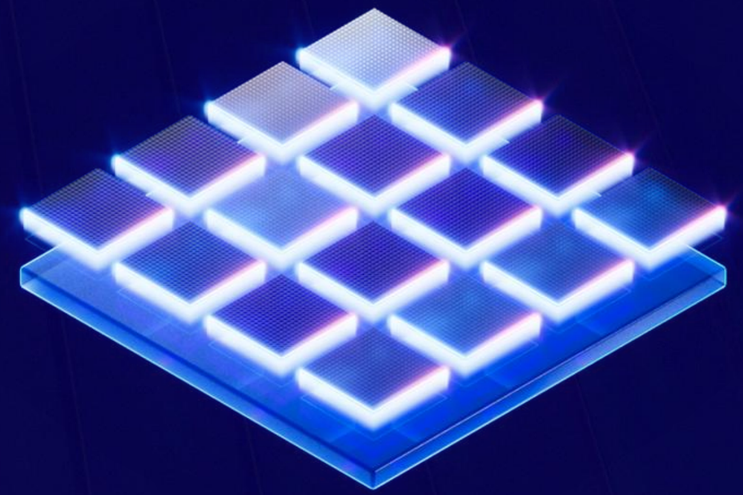
Intelligence Applications

350+

ISVs

500+

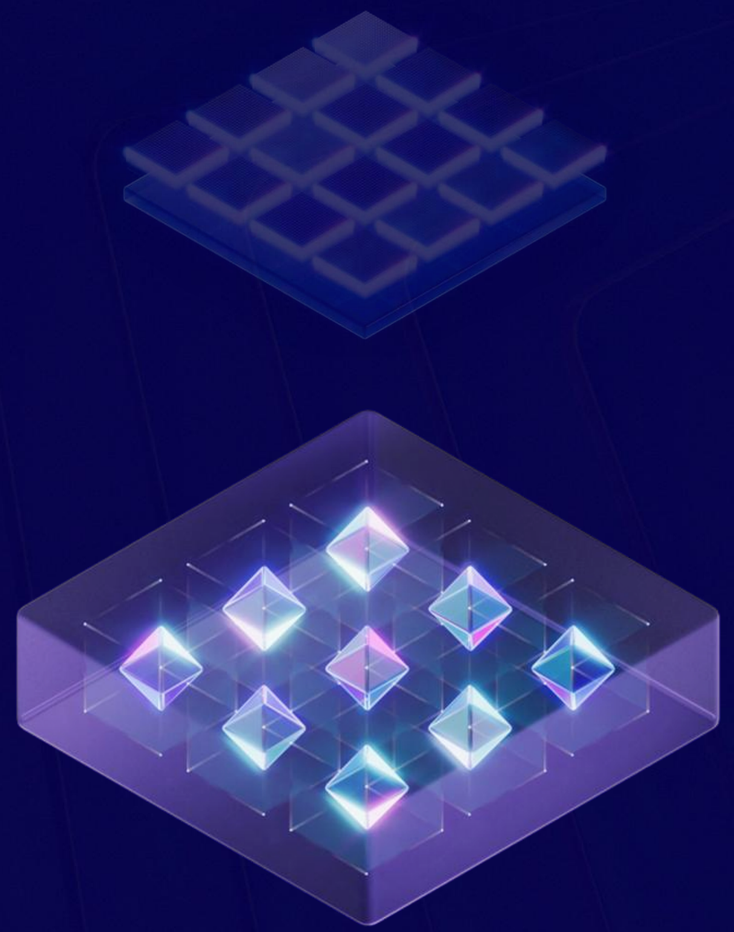
AI Features



AI Model Support

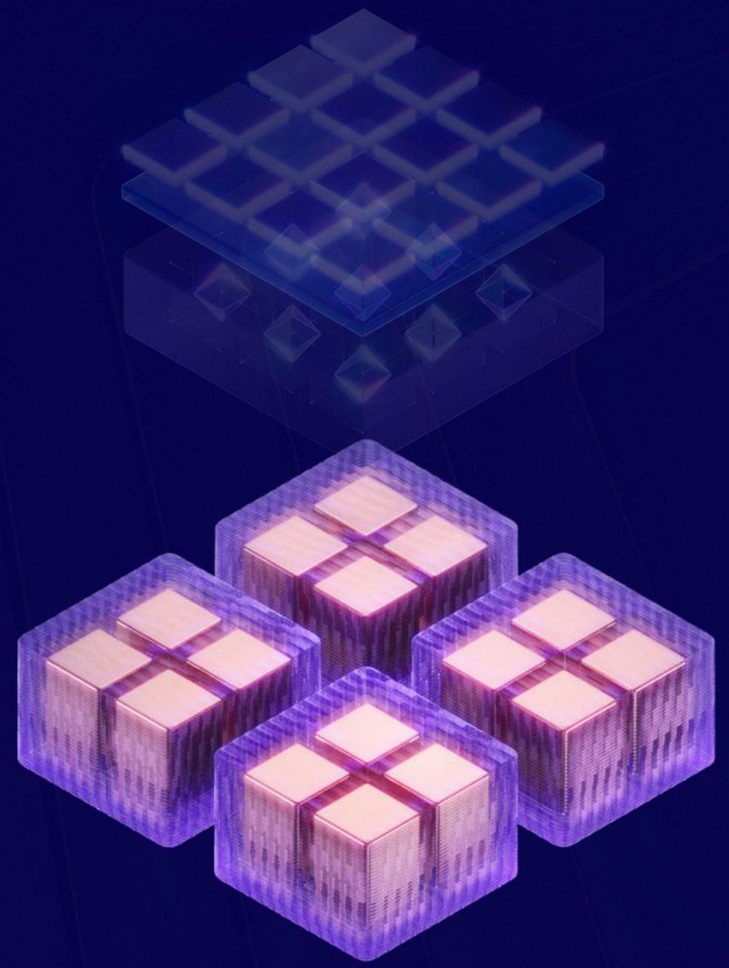
900+

Models
Supported



Scalable Deployment

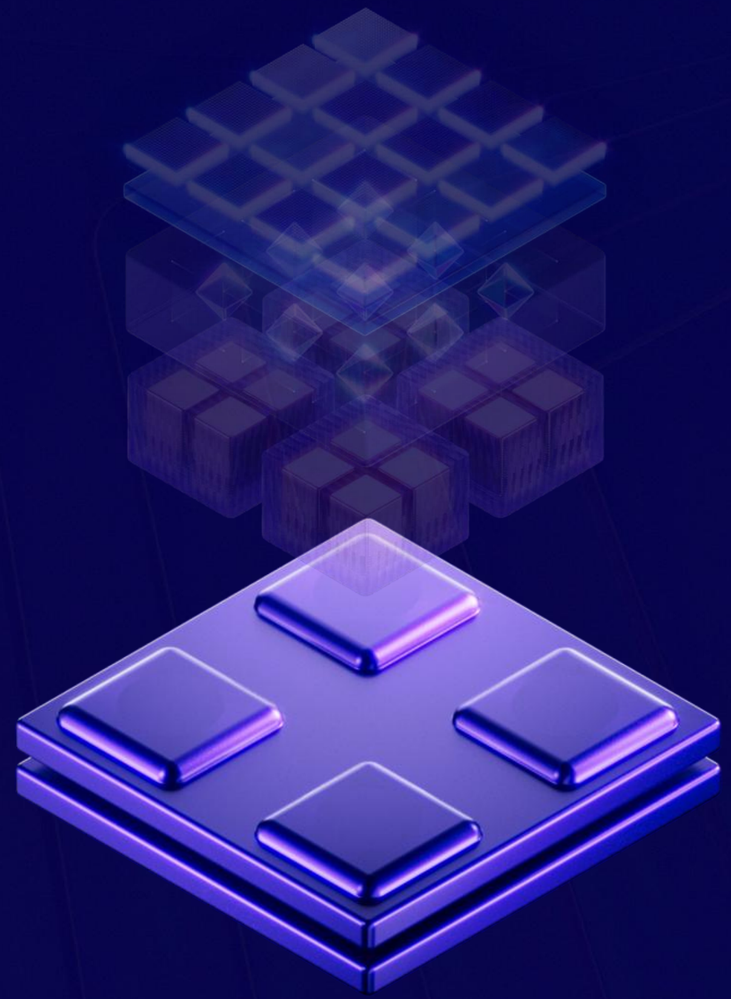
OpenVINO™ | Windows ML | Llama.cpp | PyTorch



Deep OS Co-Engineering

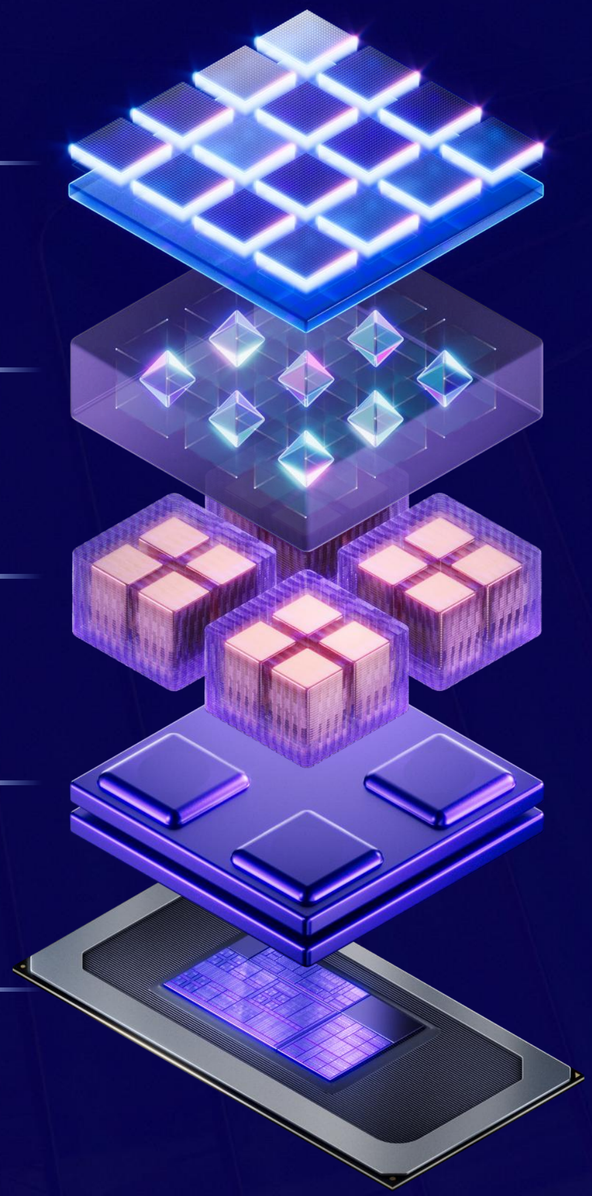
Series 3
intel CORE ULTRA

Copilot+PC

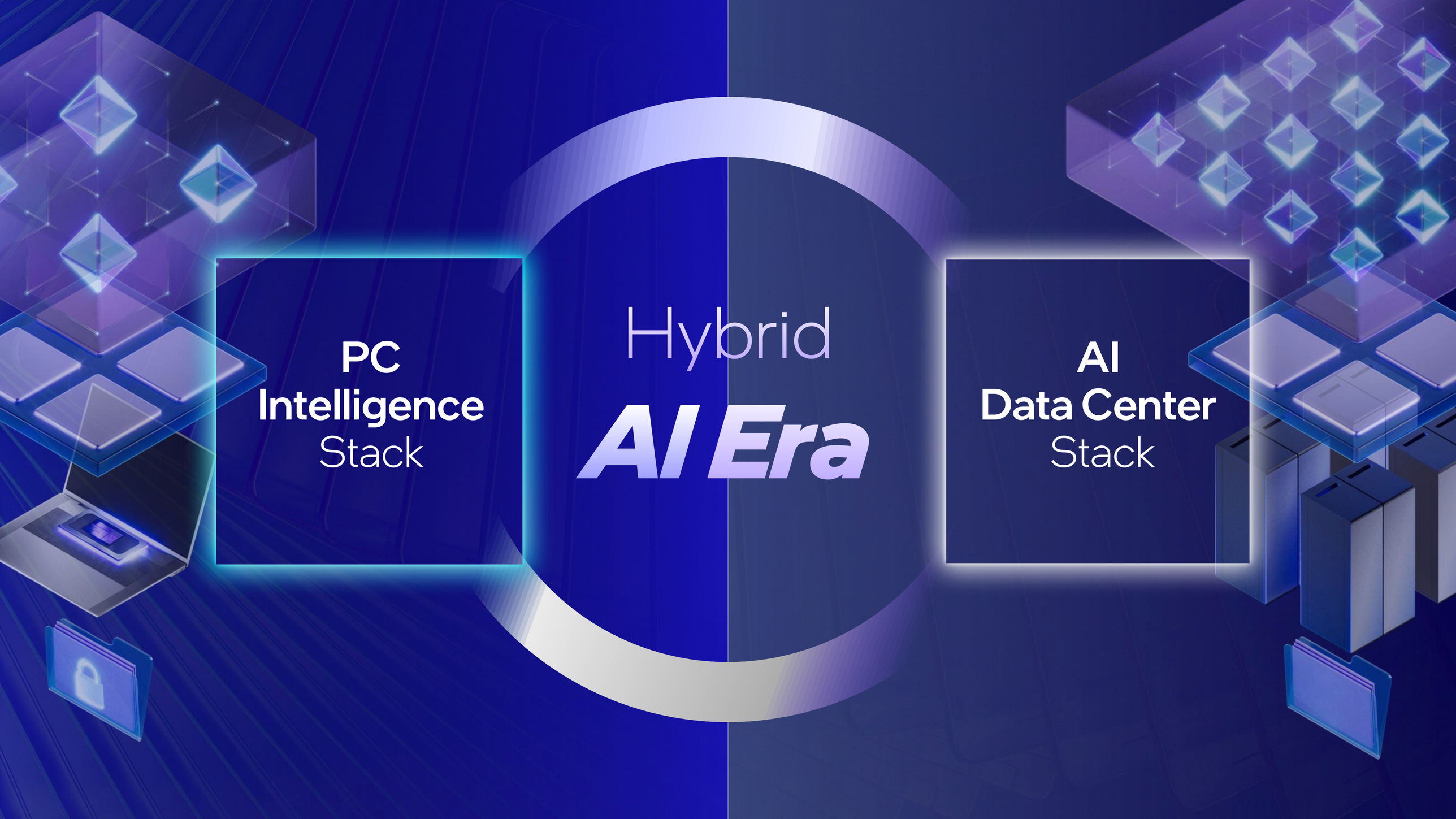


Intelligent Stack

Engineered to scale new experiences




~4
Zetta Ops
of Intel AI PCs
=
40
Data
Centers


PC
Intelligence
Stack
Hybrid
AI Era
AI
Data Center
Stack

Hybrid
Agentic AI

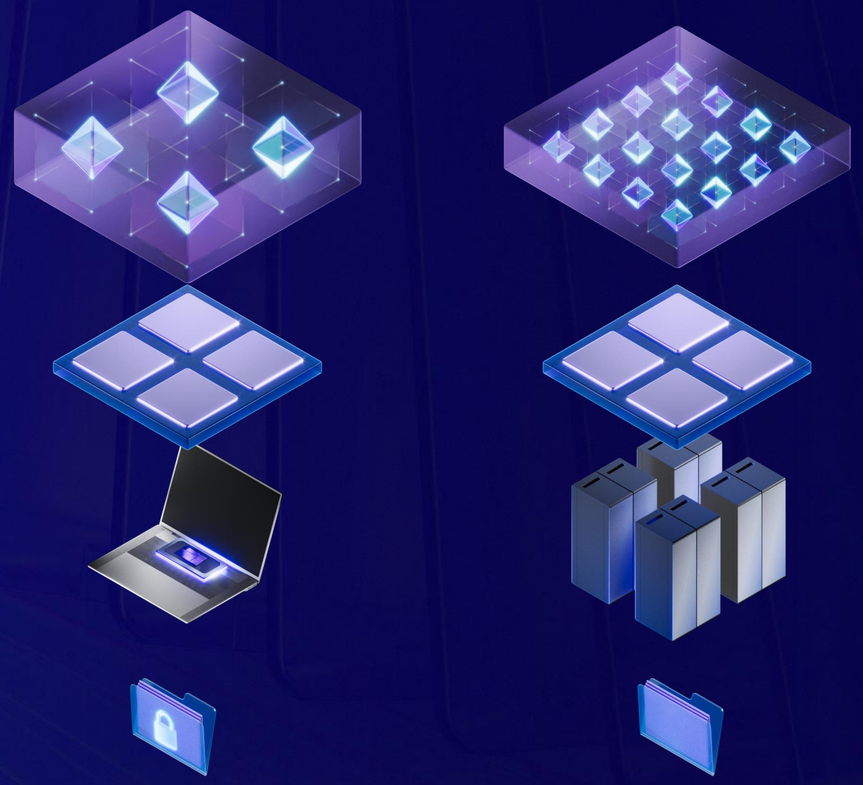
Local

Small Agent Network

Robust SW

PC AI Engines

Private Data



Cloud

Agent Network

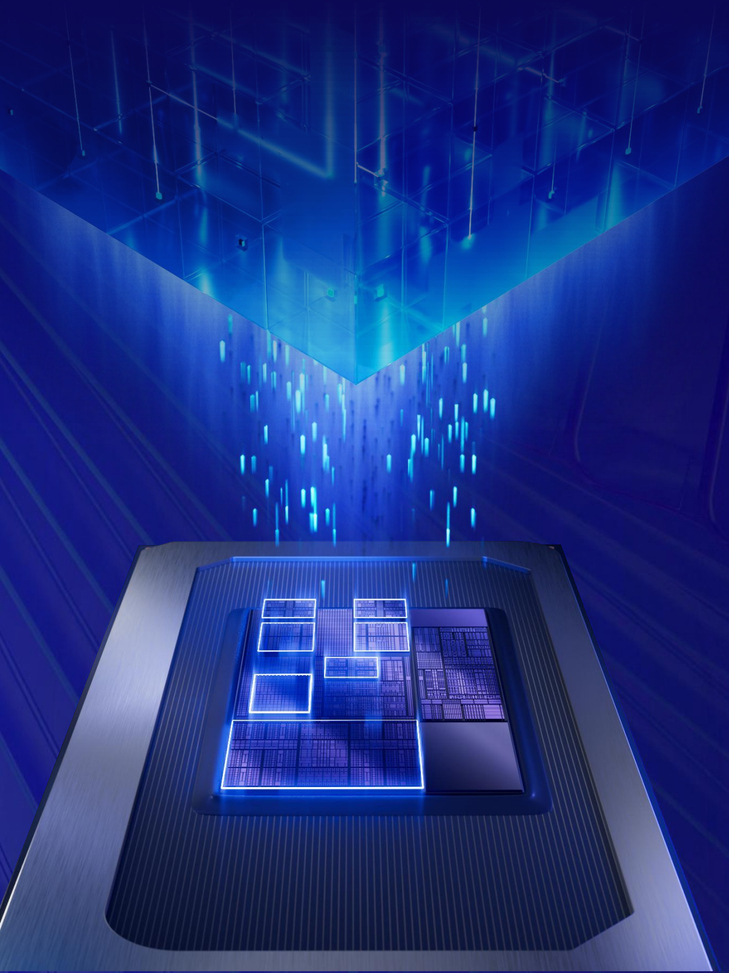
Client Aligned SW

DC AI HW

Non-confidential Data


Local
Small Agent Network
Robust SW
PC AI Engines
Private Data
Hybrid Agentic Planner
AI Super Builder
Privacy Preserved Communication
Cloud LLM
Client Aligned SW
Data Center
Non-Confidential Data
Cloud

AI Powerhouse





Up to

50

NPU TOPS

Up to

4.3x

Faster LLM

on NPU vs. AMD HX 370

Up to

180

Total TOPS

Up to

96 GB

LPDDR5x





Up to

70B

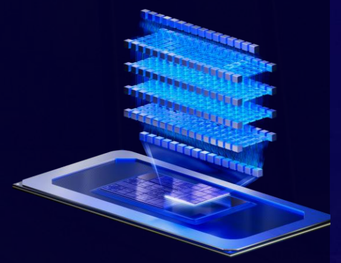
Parameter Models
+ 32K Context



Up to

120

GPU TOPS



Up to

2.0x

Faster LLM

on NPU vs.
Intel® Core™ Ultra 285H

Details at intel.com/performanceindex. Results may vary.



See intel.com/performanceindex for details.

Leadership Performance Across ALL AI Engines

Geekbench AI 1.6 Scores

Intel® Core™ Ultra X9 388H

		vs. AMD HX 370	vs. Qualcomm 84-100
CPU	INT8	1.2x	1.5x
	FP16	2.3x	1.7x
	FP32	1.2x	2.7x
GPU	INT8	9.0x	DNR
	FP16	3.1x	DNR
	FP32	2.3x	DNR
NPU	INT8	DNR	1.3x
	FP16	DNR	2.2x
	FP32	DNR	2.6x

See intel.com/performanceindex for details. Results may vary.

Consistent & Fast LLM Performance



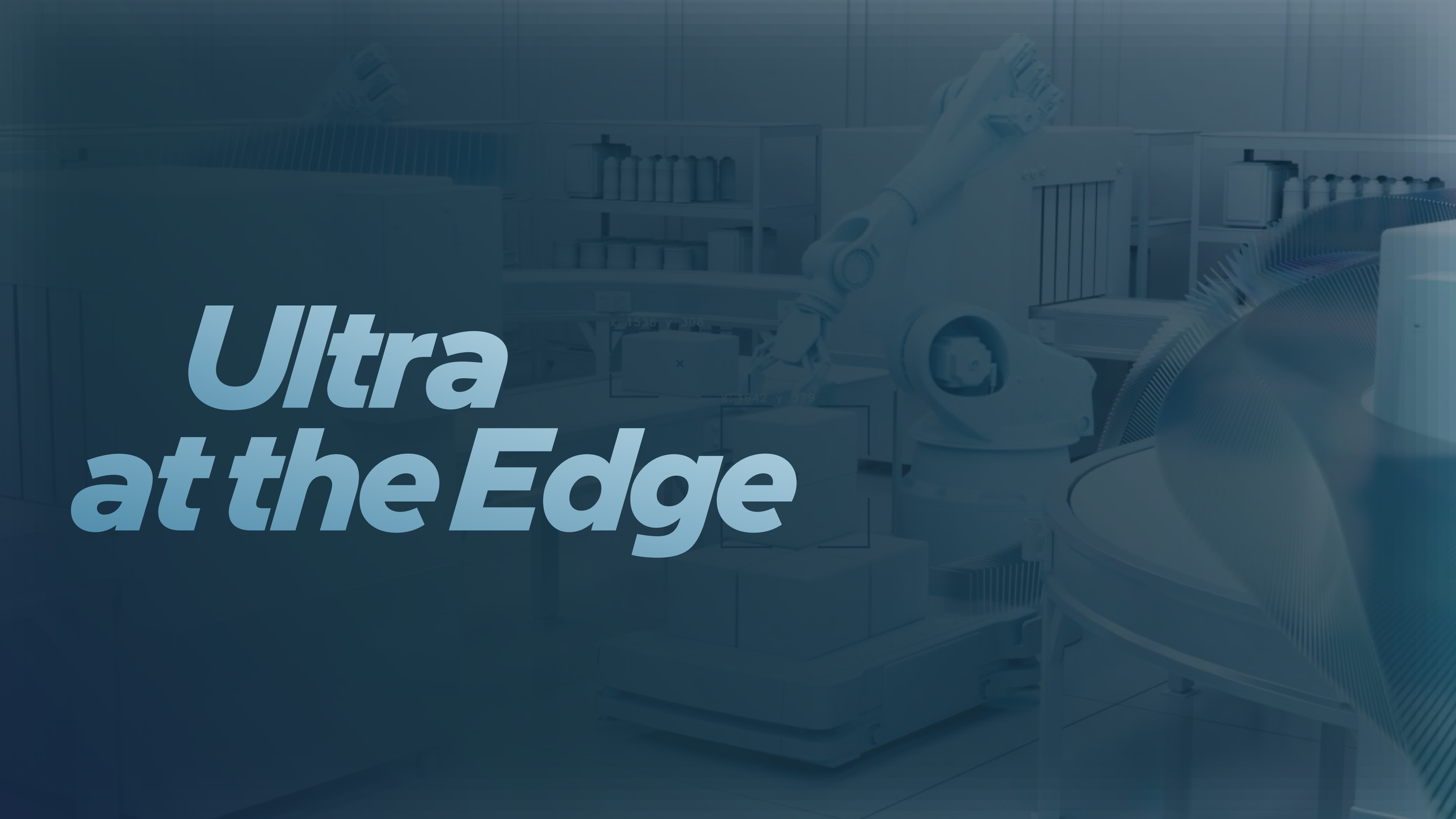
Details at intel.com/performanceindex. Results may vary.

AI creation runs best on Intel® Core™ Ultra Series 3

Intel® Core™ Ultra 9 388H vs. Intel® Core™ Ultra 9 285H

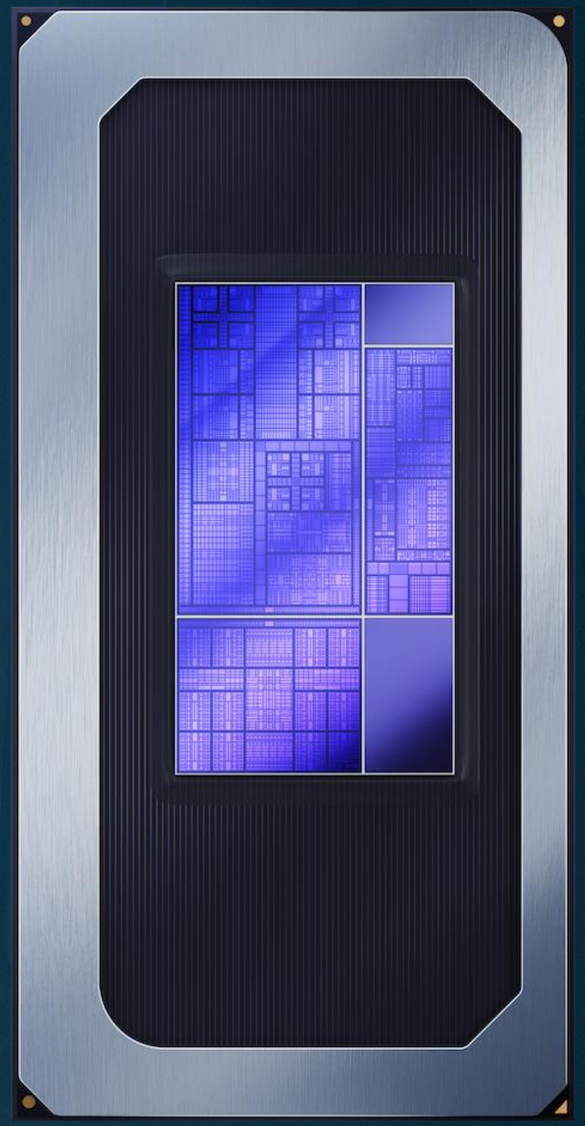
Adobe After Effects Scene Edit Detection	up to 1.1x	**Adobe Premiere Pro** Auto Reframe	up to 1.2x	**DaVinci Resolve Studio** Magic Mask 2	up to 1.3x
Canvid AI Background	up to 1.4x	**Ollama** GPT-OSS 20B	up to 2.5x	**LM Studio** Llama4 Dolphin 8B	up to 1.5x
DistinctAI RenderFX Image Render	up to 1.1x	**Blender** Cycles Render	up to 1.5x	**Microsoft Power BI** AI Data Splits	up to 1.1x
DxO PhotoLab[9] Denoise Image	up to 1.2x	**Axell Ailia** DX Insights Benchmark Geomean	up to 1.5x	**Cyberlink Promeo** AI Marketing Advisor	up to 1.5x
EdgeRunner AI Answer Question	up to 2x	**Microsoft Excel** Data Refresh	up to 1.1x	**Topaz Photo** 4X Upscale	up to 1.3x

Details at intel.com/performanceindex. Results may vary.


Ultra
at the Edge

Intel® Core™ Ultra Series 3 for Edge

Proven Ideal for Mission-Critical Edge and Physical AI



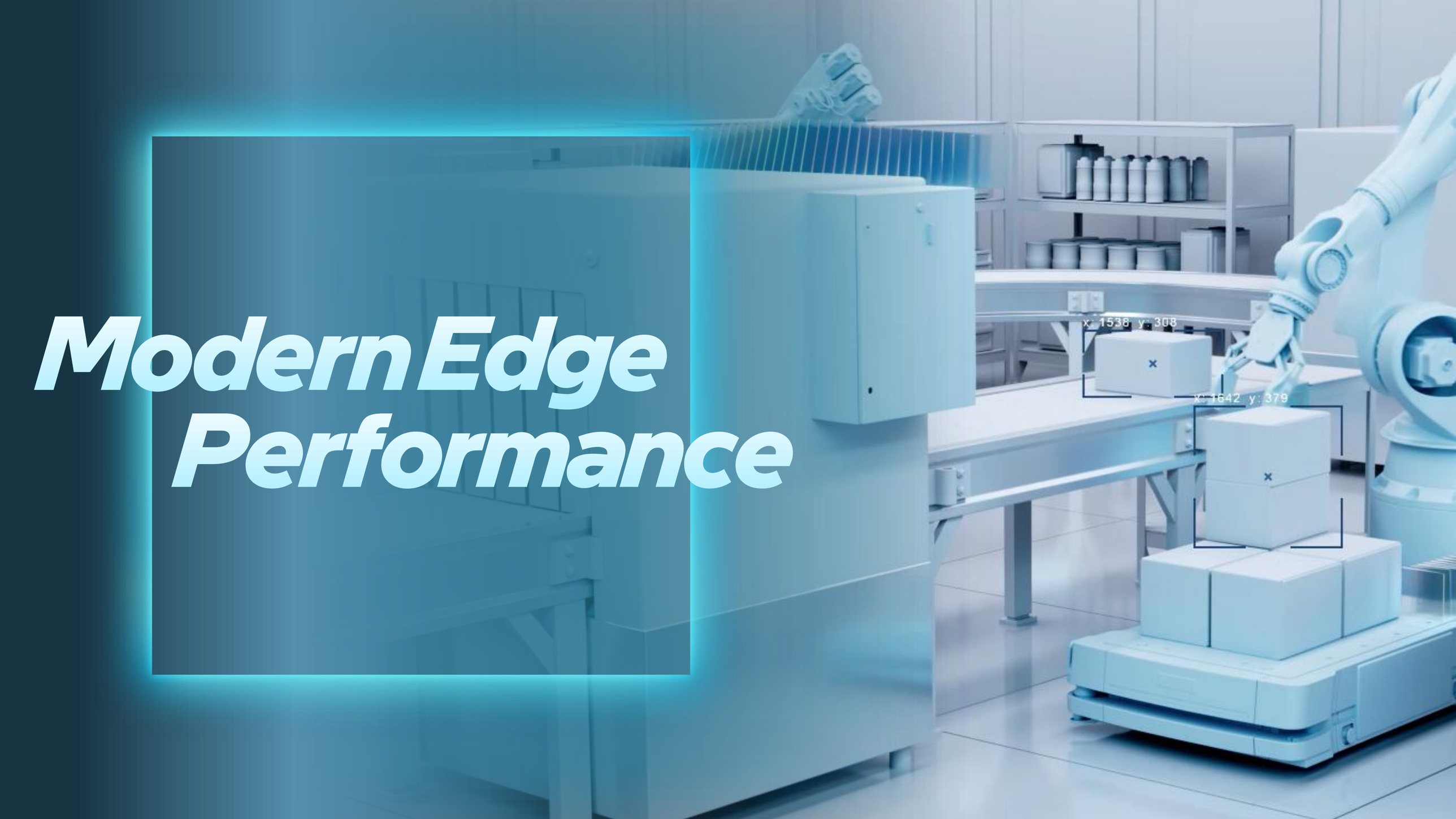
Power-efficient AI and graphics

Deterministic performance

Industrial durability & flexibility

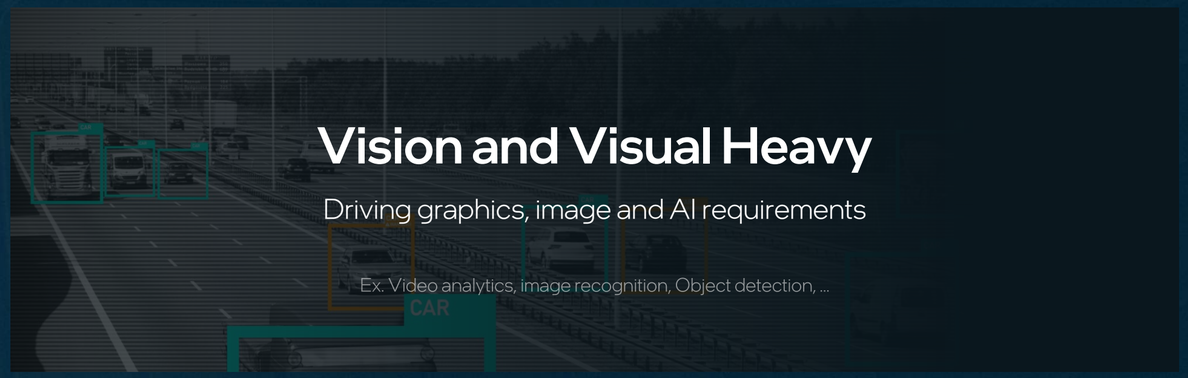
Built for developer agility

Modern Edge Performance





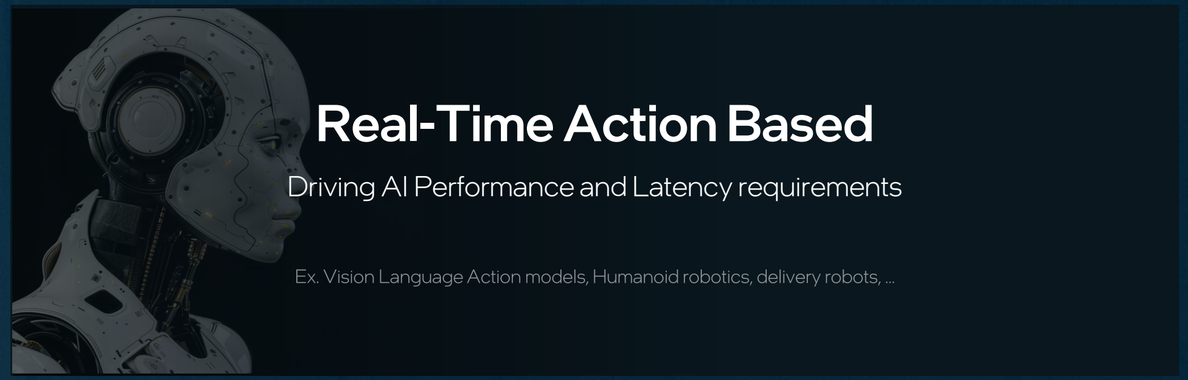
Modern Edge Workload Requirements



Vision and Visual Heavy

Driving graphics, image and AI requirements

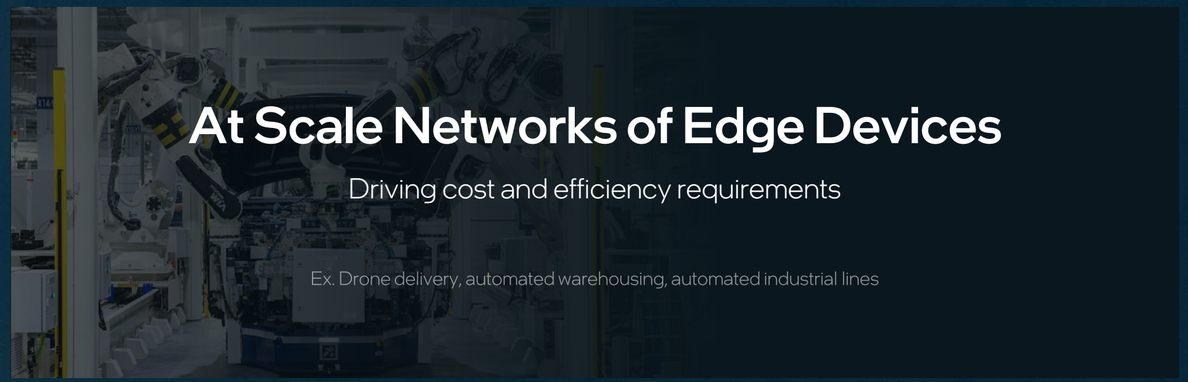
Ex. Video analytics, image recognition, Object detection, ...



Real-Time Action Based

Driving AI Performance and Latency requirements

Ex. Vision Language Action models, Humanoid robotics, delivery robots, ...



At Scale Networks of Edge Devices

Driving cost and efficiency requirements

Ex. Drone delivery, automated warehousing, automated industrial lines

Ultra Performance at the Edge

Intel® Core™ Ultra X9 388H vs.
NVIDIA® Jetson AGX Orin 64GB



Intel® Core™ Ultra X9 388H

NVIDIA® Jetson AGX Orin 64GB

Details at intel.com/performanceindex. Results may vary.

Modern Edge Workload Mastery

Intel® Core™ Ultra X9 388H vs.
Intel® Core™ Ultra 9 285H



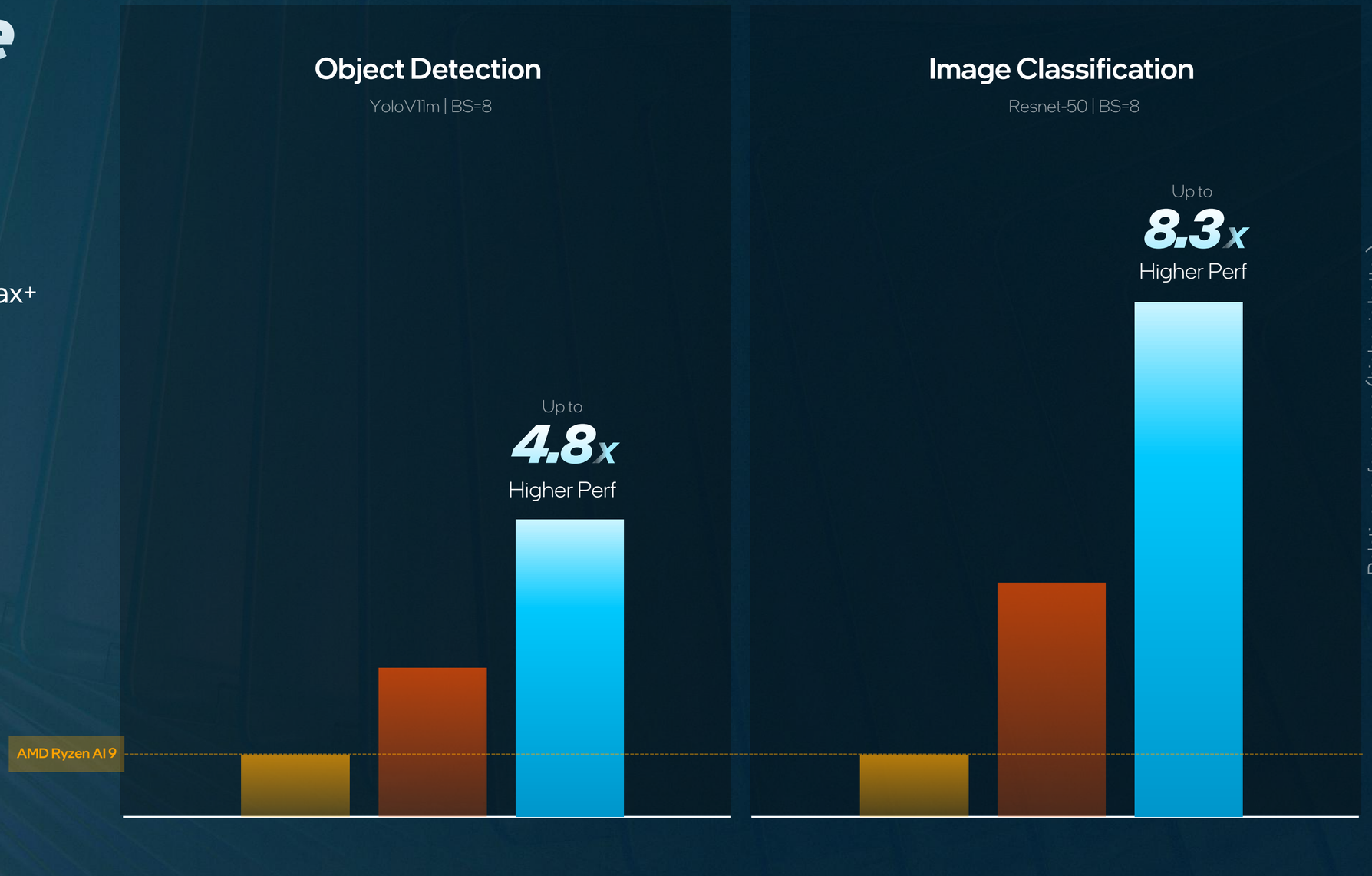
Intel® Core™ Ultra X9 388H

Intel® Core™ Ultra 9 285H

Details at intel.com/performanceindex. Results may vary.

Modern Edge Workload Mastery

Intel® Core™ Ultra X9 388H vs.
AMD Ryzen AI 9 and Ryzen AI Max+



Details at intel.com/performanceindex. Results may vary.

Proven TCO savings for Edge AI

Intel Core Ultra Series 3 displaces competition across multiple verticals and customers

intel CORE ULTRA X7

Document Parsing

OCR and Document AI

Up to

39%

Savings per system over 5 years

Displaced NV RTX 4060

Robotics AI

Vision Language Action and imitation learning policy

Up to

42%

Savings per system

Displaced NV Jetson AGX Orin 64GB

Humanoid Robotics

Speech synthesis, VLM and multi-task vision

Up to

67%

Savings per system over 5 years

Displaced NV Jetson Thor

Details at intel.com/performanceindex. Results may vary.

Pushing the Edge with Partners

activeloop

...achieved nearly 9X faster throughput compared to NVIDIA® Jetson Nano™... giving delivery robots the context they need to evaluate higher-stakes decisions, ... enables fast perception with deep reasoning, **making possible, VLM-driven intelligence for last-mile delivery robots**

Davit Buniatyan - CEO

Baidu 百度

...1.4X lower latency and 2.7X higher power efficiency compared to an NVIDIA RTX 4060 GPU... **enables real-time document parsing and text recognition on compact edge devices**, helping businesses automate workflows

Alex Zhang - Senior Product Manager



NANOXAI

localization runs up to 152X faster on the NPU, heart segmentation up to 25X faster on the CPU, and calcium segmentation nearly 27X faster on the integrated Arc GPU. This near–real-time performance **accelerates clinical decision-making while keeping sensitive cardiac data securely on-device**

Sharon Saban - General Manager

TROSSEN

...**substantial improvement in policy throughput** — 4.9× faster on our lighter model, 8.3× faster on our mid-range model, and 8.6× faster on our higher-load model than Jetson AGX Orin...

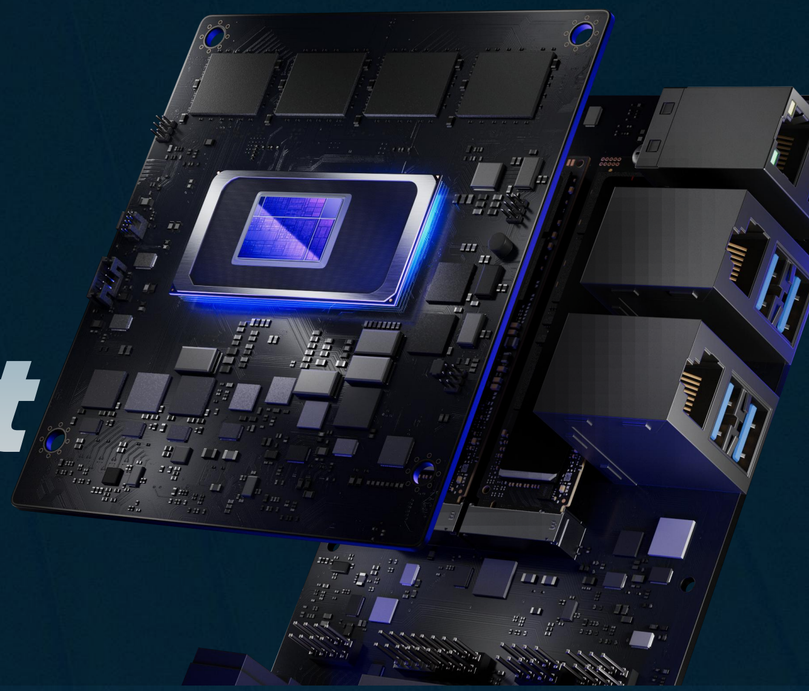
Luke Schmitt - Lead Software Engineer

AI Robotics Software Suite



Pushing the Edge of Enablement

Reference Board



Appendix

Claim	Claim Details/Citation
Up to 15% better perf/watt	Source : Intel internal analysis, 2024.Results may vary.
Up to 30% better chip density	Source : Intel internal analysis, 2024.Results may vary.
Get as much as 27 hours	Processor: Intel Core Ultra X9 388H (Panther Lake); tested in Lenovo IdeaPad reference design; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2.8k; OS: Windows 11 26200.7171; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Balanced"; Lenovo Vantage = Balanced. Battery Size: 99.9Whr
Up to 60% higher CPU performance	Processor: Intel Core Ultra X9 388H (Panther Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: Intel Core Ultra 9 288V (Lunar Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 8533; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: 32.0.101.6987; NPU Driver: 32.0.100.4239; BIOS: LNLMFWI1.R00.3223; Power Plan set to Balanced, Power Mode set to "Best Performance".
Up to 77% faster graphics	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=25W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 4TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: Intel Core Ultra 9 288V (Lunar Lake) PL1 = 25W; tested in Intel reference platform; Memory: 32GB LPDDR5 8533; Storage: Samsung 9100 Pro 4TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: 32.0.101.8331; NPU Driver: 32.0.100.4239; BIOS: LNLMFWI1.R00.3223; Power Plan set to Balanced, Power Mode set to "Best Performance".
Up to 2x faster AI performance	Processor: Intel Core Ultra X7 358H (Panther Lake); tested in MSI Prestige 14; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2.8k; OS: Windows 11 26200.7171; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance"; MSI Center = Performance. Battery Size: 78.6Whr Processor: AMD Ryzen AI 9 365 (Strix Point); tested in ASUS Zenbook S 16; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7171; Graphics Driver: 32.0.22029.1019; NPU Driver: 32.0.203.314; BIOS: UM5606WA.319; Power Plan set to Balanced, Power Mode set to "Best Performance"; MyAsus= Performance. Battery Size: 78Whr
Up to 40% lower power at similar perf	Processor: Intel Core Ultra X9 388H (Panther Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: Intel Core Ultra 9 288V (Lunar Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 8533; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: 32.0.101.6987; NPU Driver: 32.0.100.4239; BIOS: LNLMFWI1.R00.3223; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: Intel Core Ultra 9 285H (Arrow Lake); tested in Intel reference platform; Memory: 64GB DDR5 6400; Storage: Samsung PM9A1 512GB; Display Resolution: 1920x1200; OS: Windows 11 26200.6725; Graphics Driver: 32.0.101.8132; NPU Driver: 32.0.100.4404; BIOS: MTLPFWI1.R00.5385; Power Plan set to Balanced, Power Mode set to "Best Performance".
>60% more performance at similar power	Processor: Intel Core Ultra X9 388H (Panther Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: Intel Core Ultra 9 288V (Lunar Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 8533; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: 32.0.101.6987; NPU Driver: 32.0.100.4239; BIOS: LNLMFWI1.R00.3223; Power Plan set to Balanced, Power Mode set to "Best Performance".

Appendix

Claim	Claim Details/Citation
>60% more performance at similar power	Processor: Intel Core Ultra X9 388H (Panther Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: Intel Core Ultra 9 288V (Lunar Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 8533; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: 32.0.101.6987; NPU Driver: 32.0.100.4239; BIOS: LNLMFWI1.R00.3223; Power Plan set to Balanced, Power Mode set to "Best Performance".
>10% more performance at similar power	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: Intel Core Ultra 9 285H (Arrow Lake) PL1=45W; tested in Intel reference platform; Memory: 64GB DDR5 6400; Storage: Samsung PM9A1 512GB; Display Resolution: 1920x1200; OS: Windows 11 26200.6725; Graphics Driver: 32.0.101.8132; NPU Driver: 32.0.100.4404; BIOS: MTLPFWI1.R00.5385; Power Plan set to Balanced, Power Mode set to "Best Performance".
Thin & powerful productivity performance	As measured by Crossmark: Overall, Procyon: Office Productivity , Speedometer 3.1 (Chrome), Procyon: Photo Editing, Procyon: Video Editing, and Blender: GPU Benchmark on the Intel Core Ultra X9 388H (Reference Platform, 45W sustained), Intel Core Ultra 9 285H (reference platform, 45W sustained), Qualcomm 84-100 (Customer Chassis, ~50W sustained, and AMD HX 370 (Customer Chassis, 53W sustained)
Thin & light productivity performance	As measured As measured by Crossmark: Overall, Procyon: Office Productivity , Speedometer 3.1 (Chrome), Procyon: Photo Editing, Procyon: Video Editing, and Blender: GPU Benchmark on the Intel Core Ultra X9 388H (Reference Platform, 25W sustained), Intel Core Ultra 9 285H (reference platform, 25W sustained), Intel Core Ultra 7 255H (Reference platform, 25W sustained) and AMD AI 365 (Customer Chassis, 22W sustained)
Up to 2.8x processor power reduction while streaming video with an Intel® Core™ Ultra X9 388H vs. Intel® Core™ 7 150U	"Processor: Intel Core Ultra X9 388H (Panther Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to ""Balanced"". Processor: Intel Core 7 150U (Raptor Lake Refresh); tested in Intel reference platform; Memory: 32GB LPDDR5 6400; Storage: Samsung PM9A1 512GB; Display Resolution: 1920x1080; OS: Windows 11 26100.2454; Graphics Driver: 32.0.101.6314; NPU Driver: NA; BIOS: RPLPFWI1.R00.5401; Power Plan set to Balanced, Power Mode set to ""Balanced"" ."
Up to 57% lower SOC power	Processor: Intel Core Ultra X9 388H (Panther Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Balanced". Processor: Intel Core Ultra 7 255H (Arrow Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 8533; Storage: Samsung PM9A1 512GB; Display Resolution: 1920x1200; OS: Windows 11 26200.6725; Graphics Driver: 32.0.101.8132; NPU Driver: 32.0.100.4404; BIOS: MTLPFWI1.R00.5385; Power Plan set to Balanced, Power Mode set to "Balanced".
Up to 78% lower SOC power	Processor: Intel Core Ultra X9 388H (Panther Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Balanced". Processor: AMD Ryzen AI 9 365 (Strix Point); tested in MSI Prestige A16 AI+; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: 32.0.13022.5002; NPU Driver: 32.0.203.280; BIOS: UM5606WA.319; Power Plan set to Balanced, Power Mode set to "Balanced"; MSI Center = Balanced. Battery Size: 80Whr

Appendix

Claim	Claim Details/Citation
The x86 Battery Life King	Processor: Intel Core Ultra X9 388H (Panther Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Balanced". Processor: Intel Core Ultra 9 288V (Lunar Lake); tested in Intel reference platform; Memory: 32GB LPDDR5 8533; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: 32.0.101.6987; NPU Driver: 32.0.100.4239; BIOS: LNLMFWI1.R00.3223; Power Plan set to Balanced, Power Mode set to "Balanced". Processor: AMD Ryzen AI 9 365 (Strix Point); tested in MSI Prestige A16 AI+; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: 32.0.13022.5002; NPU Driver: 32.0.203.280; BIOS: UM5606WA.319; Power Plan set to Balanced, Power Mode set to "Balanced"; MSI Center = Balanced. Battery Size: 80Whr Processor: AMD Ryzen AI 9 HX 375 (Strix Point); tested in HP EliteBook X G1a; Memory: 32GB LPDDR5 8000; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7171; Graphics Driver: 32.0.22029.1019; NPU Driver: 32.0.203.314; BIOS: X88 v01.03.11; Power Plan set to Balanced, Power Mode set to "Balanced"; HP= Smart Sense. Battery Size: 74.5Whr
27 hours Netflix Streaming	Processor: Intel Core Ultra X9 388H (Panther Lake); tested in Lenovo IdeaPad reference design; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2.8k; OS: Windows 11 26200.7171; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Balanced"; Lenovo Vantage = Balanced. Battery Size: 99.9Whr
17 hours UL Procyon Battery Life: Office Productivity	Processor: Intel Core Ultra X9 388H (Panther Lake); tested in Lenovo IdeaPad reference design; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2.8k; OS: Windows 11 26200.7171; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Balanced"; Lenovo Vantage = Balanced. Battery Size: 99.9Whr
9 hours Microsoft Studio Effects	Processor: Intel Core Ultra X9 388H (Panther Lake); tested in Lenovo IdeaPad reference design; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2.8k; OS: Windows 11 26200.7171; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Balanced"; Lenovo Vantage = Balanced. Battery Size: 99.9Whr
Get as much as 16.5 hours while Netflix streaming with an Intel® Core™ Ultra X7 358H tested in next generation HP EliteBook X	Processor: Intel Core Ultra X7 358H (Panther Lake); tested in HP EliteBook X G2i; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 1 TB; Display: 2.8k OLED; OS: Windows 11 26200.7171; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Balanced"; HP = Smart Sense. Battery Size: 68Whr
Get as much as 7.5 hours with Teams 10 Person Video call & Windows Studio Effects with an Intel® Core™ Ultra X7 358H tested in next generation HP EliteBook X	Processor: Intel Core Ultra X7 358H (Panther Lake); tested in HP EliteBook X G2i; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 1 TB; Display: 2.8k OLED; OS: Windows 11 26200.7171; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Balanced"; HP = Smart Sense. Battery Size: 68Whr
12.6 hours	As measured by Netflix streaming at 1080p in Edge browser. Individual system results may vary as power and performance are affected by use, configuration and other factors. Processor: AMD Ryzen AI 9 HX 375 (Strix Point); tested in HP EliteBook X G1a; Memory: 32GB LPDDR5 8000; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7171; Graphics Driver: 32.0.22029.1019; NPU Driver: 32.0.203.314; BIOS: X88 v01.03.11; Power Plan set to Balanced, Power Mode set to "Balanced"; HP= Smart Sense. Battery Size: 74.5Whr

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Claim	Claim Details/Citation
7.3 hours	As measured by Teams 3x3 (10 person) call using Windows Studio Effects. Individual system results may vary as power and performance are affected by use, configuration and other factors. S Processor: AMD Ryzen AI 9 HX 375 (Strix Point); tested in HP EliteBook X G1a; Memory: 32GB LPDDR5 8000; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7171; Graphics Driver: 32.0.22029.1019; NPU Driver: 32.0.203.314; BIOS: X88 v01.03.11; Power Plan set to Balanced, Power Mode set to "Balanced"; HP= Smart Sense. Battery Size: 74.5Whr
17.7 hours	As measured by Netflix streaming at 1080p in Edge browser. Individual system results may vary as power and performance are affected by use, configuration and other factors. Processor: Qualcomm Snapdragon X Elite X1E-78-100; tested in HP EliteBook Ultra G1q; Memory: 16GB LPDDR5 8448; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2240x1400; OS: Windows 11 26200.7171; Graphics Driver: 31.0.121.1; NPU Driver: 30.0.145.1000; BIOS: InsydeF.32; Power Plan set to Balanced, Power Mode set to "Balanced"; Battery Size: 59Whr
6.9 hours	As measured by Teams 3x3 (10 person) call using Windows Studio Effects. Individual system results may vary as power and performance are affected by use, configuration and other factors. Processor: Qualcomm Snapdragon X Elite X1E-78-100; tested in HP EliteBook Ultra G1q; Memory: 16GB LPDDR5 8448; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2240x1400; OS: Windows 11 26200.7171; Graphics Driver: 31.0.121.1; NPU Driver: 30.0.145.1000; BIOS: InsydeF.32; Power Plan set to Balanced, Power Mode set to "Balanced"; Battery Size: 59Whr
Up to 76% better gaming performance vs. Arrow Lake with an Intel® Core™ Ultra X9 388H vs. Intel® Core™ Ultra 9 285H	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 4TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: Intel Core Ultra 9 285H (Arrow Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 8400; Storage: Samsung 9100 Pro 4TB; Display Resolution: 2560x1800; OS: Windows 11 26200.7462; Graphics Driver: 32.0.101.8331; NPU Driver: 32.0.100.4404; BIOS: MTLPFWI1.R00.5385; Power Plan set to Balanced, Power Mode set to "Best Performance".
Up to 77% better gaming performance vs. Lunar Lake with an Intel® Core™ Ultra X9 388H vs. Intel® Core™ Ultra 9 288V	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=25W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 4TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: Intel Core Ultra 9 288V (Lunar Lake) PL1 = 25W; tested in Intel reference platform; Memory: 32GB LPDDR5 8533; Storage: Samsung 9100 Pro 4TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: 32.0.101.8331; NPU Driver: 32.0.100.4239; BIOS: LNLMFWI1.R00.3223; Power Plan set to Balanced, Power Mode set to "Best Performance".
Up to 73% better gaming performance vs. AMD Strix Point with an Intel® Core™ Ultra X9 388H vs. AMD Ryzen™ AI 9 HX 370	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 4TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: AMD Ryzen AI 9 HX 370 (Strix Point); tested in ASUS Vivobook S 15; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7462; Graphics Driver: 32.0.21025.15011; NPU Driver: 32.0.203.314; BIOS: M5506WA.314; Power Plan set to Balanced, Power Mode set to "Best Performance"; MyAsus= Performance. Battery Size: 75Whr
82% faster on average vs. AMD HX 370	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 4TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: AMD Ryzen AI 9 HX 370 (Strix Point); tested in ASUS Vivobook S 15; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7462; Graphics Driver: 32.0.21025.15011; NPU Driver: 32.0.203.314; BIOS: M5506WA.314; Power Plan set to Balanced, Power Mode set to "Best Performance"; MyAsus= Performance. Battery Size: 75Whr

Appendix

Claim	Claim Details/Citation
2.6x faster on average	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 4TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: Qualcomm Snapdragon X Elite X1E-84-100; tested in Samsung Galaxy Book4 Edge; Memory: 16GB; Storage:1 TB; Display Resolution: 3K OLED; OS: Windows 11 26200.7462; Graphics Driver: 31.0.121.1; NPU Driver: 30.0.145.1000; BIOS: P00AKX.061.250718.WY.1; Power Plan set to Balanced, Power Mode set to "Best Performance"; Samsung= High Performance. Battery Size: 60.5Whr
Up to 10% better gaming performance vs. NVIDIA 4050 Laptop with an Intel® Core™ Ultra X9 388H vs. Intel® Core™ Ultra 7 255H with NVIDIA RTX 4050 Laptop	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 96GB LPDDR5 9600; Storage: Samsung 9100 Pro 4TB; Display Resolution: 1920x1080; OS: Windows 11 26200.7462; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: Intel Core Ultra 7 255H (Arrow Lake); tested in Dell 14 Premium with Nvidia GeForce RTX 4050; Memory: 32GB LPDDR5 8400; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2k IPS; OS: Windows 11 26200.7171; Graphics Driver(s): dGPU: 32.0.15.8180 (GeForce 581.80) & iGPU: 32.0.101.8250; NPU Driver: 32.0.100.4404; BIOS: v1.4.0; Power Plan set to Balanced, Power Mode set to "Best Performance"; Dell Optimized = Ultra Performance. Battery Size: 68Whr
Leadership Modern Gaming: 4x smoother gaming experience in Cyberpunk 2077 with Ultra Settings and RT On vs. AMD Strix Point with an Intel® Core™ Ultra X9 388H + XeSS 3 MFG vs. AMD Ryzen™ AI 9 HX 370 + FSR FG	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 4TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: AMD Ryzen AI 9 HX 370 (Strix Point); tested in ASUS Vivobook S 15; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7462; Graphics Driver: 32.0.22029.9039; NPU Driver: 32.0.203.280; BIOS: M5506WA.314; Power Plan set to Balanced, Power Mode set to "Best Performance"; MyAsus= Performance. Battery Size: 75Whr
Leadership Modern Gaming: 3x smoother gaming experience in Battlefield 6 with Overkill Settings vs. AMD Strix Point with an Intel® Core™ Ultra X9 388H + XeSS 3 MFG vs. AMD Ryzen™ AI 9 HX 370 + FSR FG	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 4TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: AMD Ryzen AI 9 HX 370 (Strix Point); tested in ASUS Vivobook S 15; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7462; Graphics Driver: 32.0.22029.9039; NPU Driver: 32.0.203.280; BIOS: M5506WA.314; Power Plan set to Balanced, Power Mode set to "Best Performance"; MyAsus= Performance. Battery Size: 75Whr
Leadership Modern Gaming: 3x smoother gaming experience in Cyberpunk 2077 with Ultra Settings and RT On.vs. Nvidia RTX 4050 with an Intel® Core™ Ultra X9 388H + XeSS 3 MFG vs. AMD Ryzen™ AI 9 HX 370 + FSR FG	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 4TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: Intel Core Ultra 7 255H (ARL-H); tested in Dell 14 Premium DA14250; Memory: 32GB LPDDR5 8400; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 1920x1200; OS: Windows 11 26200.7462; Graphics Driver: 32.0.15.9159; NPU Driver: 32.0.100.4297; BIOS: 1.4.0; Power Plan set to Balanced, Power Mode set to "Best Performance"; OEM App Power Setting set to Ultra Performance. Battery Size: 68Whr
Leadership Modern Gaming: 2x smoother gaming experience in Battlefield 6 with Overkill Settings vs. Nvidia RTX 4050 with an Intel® Core™ Ultra X9 388H + XeSS 3 MFG vs. AMD Ryzen™ AI 9 HX 370 + FSR FG	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 4TB; Display Resolution: 2880x1800; OS: Windows 11 26200.7462; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: Intel Core Ultra 7 255H (ARL-H); tested in Dell 14 Premium DA14250; Memory: 32GB LPDDR5 8400; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 1920x1200; OS: Windows 11 26200.7462; Graphics Driver: 32.0.15.9159; NPU Driver: 32.0.100.4297; BIOS: 1.4.0; Power Plan set to Balanced, Power Mode set to "Best Performance"; OEM App Power Setting set to Ultra Performance. Battery Size: 68Whr

Appendix

Claim	Claim Details/Citation
AI Super Builder	Learn more here: https://newsroom.intel.com/client-computing/ai-assistant-builder-delivers-free-ai-assistants
350+ ISVs	Intel Analysis as of January 2026
500+ AI Features	Intel Analysis as of January 2026
900+ Models Support	Intel Analysis as of January 2026
Up to 4.3x MLPerf Client 1.5 NPU AI Performance with an Intel® Core™ Ultra X9 388H vs. AMD Ryzen™ AI 9 HX 370	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: AMD Ryzen AI 9 HX 370 (Strix Point); tested in ASUS Vivobook S 15; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7171; Graphics Driver: 32.0.22029.1019; NPU Driver: 32.0.203.314; BIOS: M5506WA.314; Power Plan set to Balanced, Power Mode set to "Best Performance"; MyAsus= Performance. Battery Size: 75Whr
Up to 1.9x MLPerf Client 1.5 GPU AI Performance with an Intel® Core™ Ultra X9 388H vs. AMD Ryzen™ AI 9 HX 370	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: AMD Ryzen AI 9 HX 370 (Strix Point); tested in ASUS Vivobook S 15; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7171; Graphics Driver: 32.0.22029.1019; NPU Driver: 32.0.203.314; BIOS: M5506WA.314; Power Plan set to Balanced, Power Mode set to "Best Performance"; MyAsus= Performance. Battery Size: 75Whr
The only PC Processor with 2 Fully Featured AI Engines	As of December 2025 among Windows based PCs.
Geekbench AI 1.6 scores Leadership Performance Across ALL AI Engines	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: AMD Ryzen AI 9 HX 370 (Strix Point); tested in ASUS Vivobook S 15; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7171; Graphics Driver: 32.0.22029.1019; NPU Driver: 32.0.203.314; BIOS: M5506WA.314; Power Plan set to Balanced, Power Mode set to "Best Performance"; MyAsus= Performance. Battery Size: 75Whr Processor: Qualcomm Snapdragon X Elite X1E-84-100; tested in Samsung Galaxy Book4 Edge; Memory: 16GB; Storage:1 TB; Display Resolution: 3K OLED; OS: Windows 11 26200.7171; Graphics Driver: 31.0.121.1; NPU Driver: 30.0.145.1000; BIOS: P00AKX.061.250718.WY.1; Power Plan set to Balanced, Power Mode set to "Best Performance"; Samsung= High Performance. Battery Size: 60.5Whr

Appendix

Claim	Claim Details/Citation
AI Super Builder	Learn more here: https://newsroom.intel.com/client-computing/ai-assistant-builder-delivers-free-ai-assistants
350+ ISVs	Intel Analysis as of January 2026
500+ AI Features	Intel Analysis as of January 2026
900+ Models Support	Intel Analysis as of January 2026
Up to 4.3x MLPerf Client 1.5 NPU AI Performance with an Intel® Core™ Ultra X9 388H vs. AMD Ryzen™ AI 9 HX 370	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: AMD Ryzen AI 9 HX 370 (Strix Point); tested in ASUS Vivobook S 15; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7171; Graphics Driver: 32.0.22029.1019; NPU Driver: 32.0.203.314; BIOS: M5506WA.314; Power Plan set to Balanced, Power Mode set to "Best Performance"; MyAsus= Performance. Battery Size: 75Whr
Up to 1.9x MLPerf Client 1.5 GPU AI Performance with an Intel® Core™ Ultra X9 388H vs. AMD Ryzen™ AI 9 HX 370	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: AMD Ryzen AI 9 HX 370 (Strix Point); tested in ASUS Vivobook S 15; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7171; Graphics Driver: 32.0.22029.1019; NPU Driver: 32.0.203.314; BIOS: M5506WA.314; Power Plan set to Balanced, Power Mode set to "Best Performance"; MyAsus= Performance. Battery Size: 75Whr
The only PC Processor with 2 Fully Featured AI Engines	As of December 2025 among Windows based PCs.
Leadership Performance Across ALL AI Engines	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: AMD Ryzen AI 9 HX 370 (Strix Point); tested in ASUS Vivobook S 15; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7171; Graphics Driver: 32.0.22029.1019; NPU Driver: 32.0.203.314; BIOS: M5506WA.314; Power Plan set to Balanced, Power Mode set to "Best Performance"; MyAsus= Performance. Battery Size: 75Whr Processor: Qualcomm Snapdragon X Elite X1E-84-100; tested in Samsung Galaxy Book4 Edge; Memory: 16GB; Storage:1 TB; Display Resolution: 3K OLED; OS: Windows 11 26200.7171; Graphics Driver: 31.0.121.1; NPU Driver: 30.0.145.1000; BIOS: P00AKX.061.250718.WY.1; Power Plan set to Balanced, Power Mode set to "Best Performance"; Samsung= High Performance. Battery Size: 60.5Whr

Appendix

Claim	Claim Details/Citation
Consistent & Fast LLM Performance	Processor: Intel Core Ultra X9 388H (Panther Lake) PL1=45W; tested in Intel reference platform; Memory: 32GB LPDDR5 9600; Storage: Samsung PM9A1 512GB; Display Resolution: 2880x1800; OS: Windows 11 26200.6725; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance". Processor: AMD Ryzen AI 9 HX 370 (Strix Point); tested in ASUS Vivobook S 15; Memory: 32GB LPDDR5 7500; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2880x1620; OS: Windows 11 26200.7171; Graphics Driver: 32.0.22029.1019; NPU Driver: 32.0.203.314; BIOS: M5506WA.314; Power Plan set to Balanced, Power Mode set to "Best Performance"; MyAsus= Performance. Battery Size: 75Whr Processor: Qualcomm Snapdragon X Elite X1E-84-100; tested in Samsung Galaxy Book4 Edge; Memory: 16GB; Storage:1 TB; Display Resolution: 3K OLED; OS: Windows 11 26200.7171; Graphics Driver: 31.0.121.1; NPU Driver: 30.0.145.1000; BIOS: P00AKX.061.250718.WY.1; Power Plan set to Balanced, Power Mode set to "Best Performance"; Samsung= High Performance. Battery Size: 60.5Whr
AI Creation runs best on Intel Core	Processor: Intel Core Ultra X9 388H (Panther Lake); tested in Lenovo IdeaPad reference design with sustained PL1=65W; Memory: 32GB LPDDR5 9600; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2.8k; OS: Windows 11 26200.7171; Graphics Driver: Intel Arc Graphics Pre-Production driver; NPU Driver: Pre-Production driver; BIOS: Pre-Production BIOS; Power Plan set to Balanced, Power Mode set to "Best Performance"; Lenovo Vantage = Performance. Battery Size: 99.9Whr Processor: Intel Core Ultra 9 285H (Arrow Lake); tested in Lenovo IdeaPad Pro 5 with sustained PL1=65W; Memory: 32GB LPDDR5 8533; Storage: Samsung 9100 Pro 1 TB; Display Resolution: 2.8k; OS: Windows 11 26200.7171; Graphics Driver: 32.0.101.8250; NPU Driver: 32.0.100.4404; BIOS: PZCN49WW; Power Plan set to Balanced, Power Mode set to "Best Performance"; Lenovo Vantage = Performance. Battery Size: 84Whr
Ultra Performance at the Edge	System 1: CPU Model: Intel(R) Core(TM) Ultra X9 388H Host Name: ptl, Time: Mon Nov 17 03:50:58 AM MST 2025, System Name: Intel Corporation Panther Lake Client Platform, Baseboard: Intel Corporation PTL-UP LPS T3 RVP1, Chassis: Intel Corporation Laptop, CPU Model: Intel(R) Core(TM) Ultra X9 38BH, Architecture: x86_64, Microarchitecture: —, L3 Cache: 18 MiB, Cores per Socket: 16, Sockets: 1, Hyperthreading: Enabled, CPUs: 16, Intel Turbo Boost: Enabled, Base Frequency: 4.0 GHz, All-Core Maximum Frequency: 5.0 GHz, NUMA Nodes: 1, Prefetchers: 1, PINs: —, Accelerators Available [used]: DLB: 0 [0], DSA: 0 [0], IAA: 0 [0], QAT: 0 [0], vRAN Boost: 0 [0], Installed Memory: 16 GB (2×8 GB LPDDR5 8533 MT/s [7467 MT/s]), Hugepagesize: 2048 kB, Transparent Huge Pages: madvise, Automatic NUMA Balancing: Disabled, NIC: 4x, Disk: 1×3.67 Samsung SSD 990 EVO Plus 4TB, BIOS: PTLFWTI.800.3332.D52.2509404547, Microcode: 0xD0, OS: Ubuntu 24.04.3 LTS, Kernel: 6.17-next, TDP: 45W, Energy Performance Bias: Balanced Performance (6), Scaling Governor: powersave, Driver: intel_pstate, C-States: POLL: Enabled, C1: ACPI Enabled, C2: ACPI Enabled, C3: ACPI Enabled, Efficiency Latency Control: Enabled, Vulnerabilities: L1g OK, Q Vulnerable. System 2: Name: orin, CPU: 12-core Arm Cortex-A78AE v8.2 64-bit CPU 3MB L2 + 6MB L3 @ 2.2GHz, GPU: NVIDIA Ampere architecture with 2048 NVIDIA® CUDA® cores and 64 Tensor cores @ 1.3GHz, Memory: 64GB 256-bit LPDDR5 @ 204.8 GB/s, Storage: 64GB eMMC 5.1, Accelerator: 2× NVDLA v2.0, PVA v2.0, Accelerator: APE, NVENC, NVDEC, NVJPG, NVJPG1, VIC, SE, OS: Ubuntu 22.04.5 LTS, Kernel: 5.15.148-tegra, Jetpack: 6.2.1, Deepstream: 7.0, CUDA: 12.6, TensorRT: v100300, Jetson clocks: Default, NVP modes: 0 - MAXN.
Modern Edge Workload Mastery Intel® Core™ Ultra X9 388H vs. Intel® Core™ Ultra 9 285H	See intel.com/performanceindex
Modern Edge Workload Mastery Intel® Core™ Ultra X9 388H vs. AMD Ryzen AI 9 and Ryzen AI Max+	See intel.com/performanceindex

Appendix

Claim	Claim Details/Citation
Proven TCO savings for Edge AI	System 1: NVIDIA Jetson Thor (T5000) Blackwell GPU 128GB Ubuntu 24.04 System 2: Nvidia Jetson AGX Orin Ampere GPU 32GB Ubuntu 22.04


intel