

intel

***Intel***<sup>®</sup> ***Core***<sup>™</sup>  
***Ultra 200HX***  
***Plus***

Mobile Processors

NEW INDICATOR

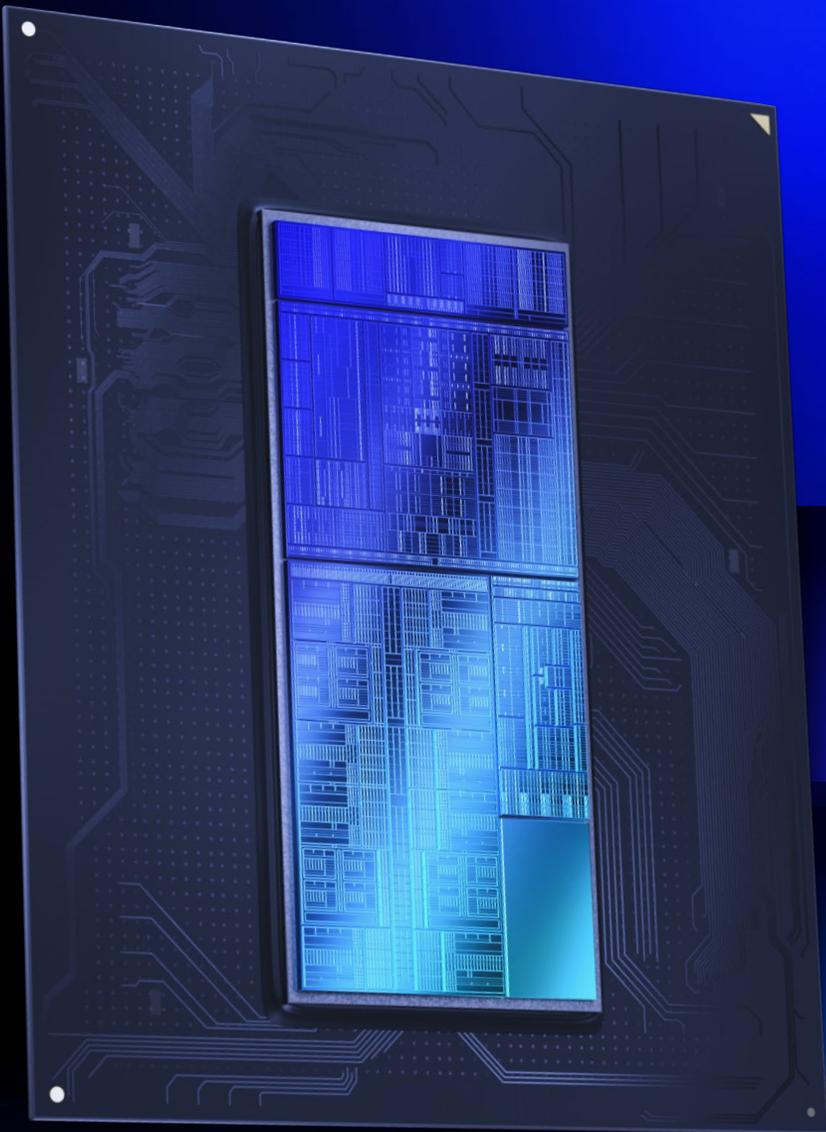
**“Plus”**

Pushed further for enthusiasts

Architecture and process  
refinements

More performance  
for an existing platform

The ultimate expression  
of a new architectural  
generation



# Intel® Core™ Ultra 200HX Plus

## Intel® Core™ Ultra 9 290HX Plus

**24** Cores  
(8P+16E)

**24** Threads

**5.5** Max GHz

**+900** MHz die-to-die frequency

## Intel® Core™ Ultra 7 270HX Plus

**20** Cores  
(8P+12E)

**20** Threads

**5.3** Max GHz

**+900** MHz die-to-die frequency

# Intel® Core™ Ultra 200HX Plus

## Key features

Lion Cove P-Core Architecture

Skymont E-Core Architecture

**NEW** Enhanced Uncore Frequencies

Integrated NPU

X<sup>e</sup> LPG Graphics Architecture

Up to 36 MB Shared Intel® Smart Cache L3

Integrated Thunderbolt 4 Technology  
Discrete Thunderbolt 5 Technology



DDR5-6400 MT/s Support

Integrated Wi-Fi 6E, Discrete Wi-Fi 7 Capable

**NEW** Intel Platform Performance Package

**NEW** Supports Intel Binary Optimization Tool

Intel Application Optimization (APO)

Intel Extreme Memory Profile (XMP)

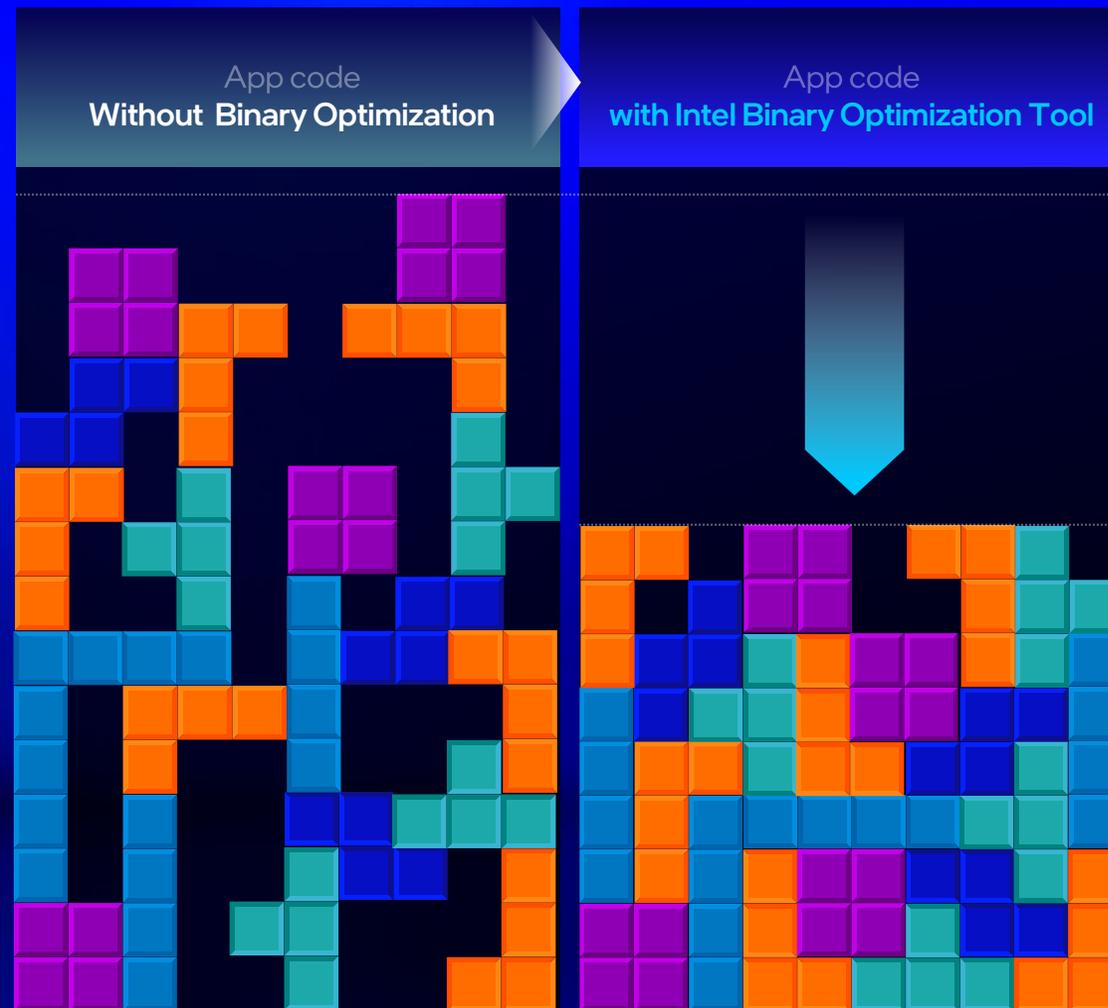
Intel Extreme Tuning Utility (XTU)

# Intel® Binary Optimization Tool

**An all-new class of optimization IP**  
to serve enthusiast performance\*

**Leverages Intel compiler and profiling IP**  
to streamline library & executable performance

**No skipped work**  
results achieved by reducing architectural contention



*For illustrative purposes only*

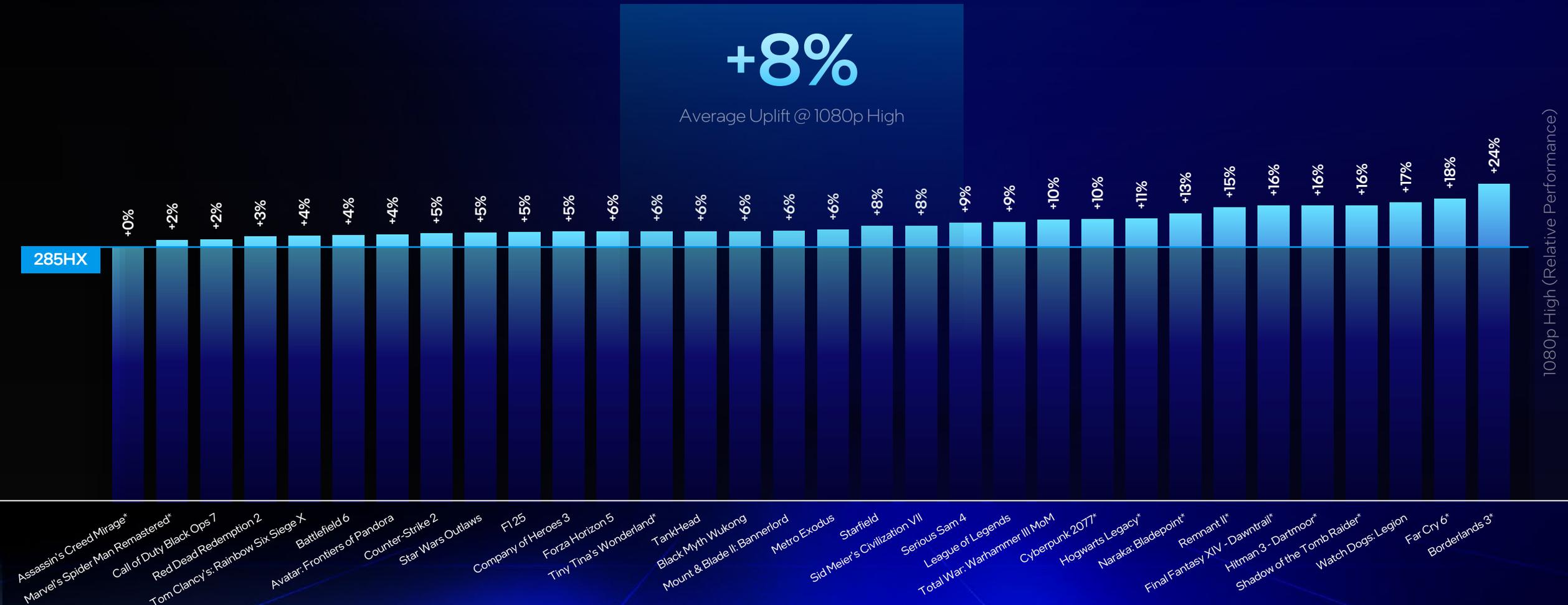
\*On supported Intel Binary Optimization Tool workloads. Intel® Binary Optimization Tool is an optional feature available by switching on Advanced Mode of Intel® Application Optimization.

# Gaming on Intel® Core™ Ultra 9 290HX Plus

vs. Intel® Core™ Ultra 9 285HX

**+8%**

Average Uplift @ 1080p High



1080p High (Relative Performance)



\*Intel Binary Optimization Tool enabled. Intel® Binary Optimization Tool is an optional feature available by switching on Advanced Mode of Intel® Application Optimization. See [intel.com/performanceindex](https://intel.com/performanceindex) for details. Results may vary

**Intel® Core™ Ultra 9 290HX Plus**  
RTX 5090 Laptop  
MSI Titan 18

**Intel® Core™ Ultra 9 285HX**  
RTX 5090 Laptop  
MSI Titan 18

Embargo: March 17, 2026 at 12a.m. Pacific Time

# Gaming Performance: Four Year Upgrade

Intel® Core™ Ultra 9 290HX Plus vs. Intel® Core™ i9-12900HX

**+62%**

Average Uplift @ 1080p High



12900HX

1080p High (Relative Performance)

\*Intel Binary Optimization Tool enabled. Intel® Binary Optimization Tool is an optional feature available by switching on Advanced Mode of Intel® Application Optimization. See intel.com/performanceindex for details. Results may vary

Intel® Core™ Ultra 9 290HX Plus  
RTX 5090 Laptop  
MSI Titan 18

Intel® Core™ i9-12900HX  
RTX 3080 Ti Laptop  
MSI Titan 18

Embargo: March 17, 2026 at 12a.m. Pacific Time

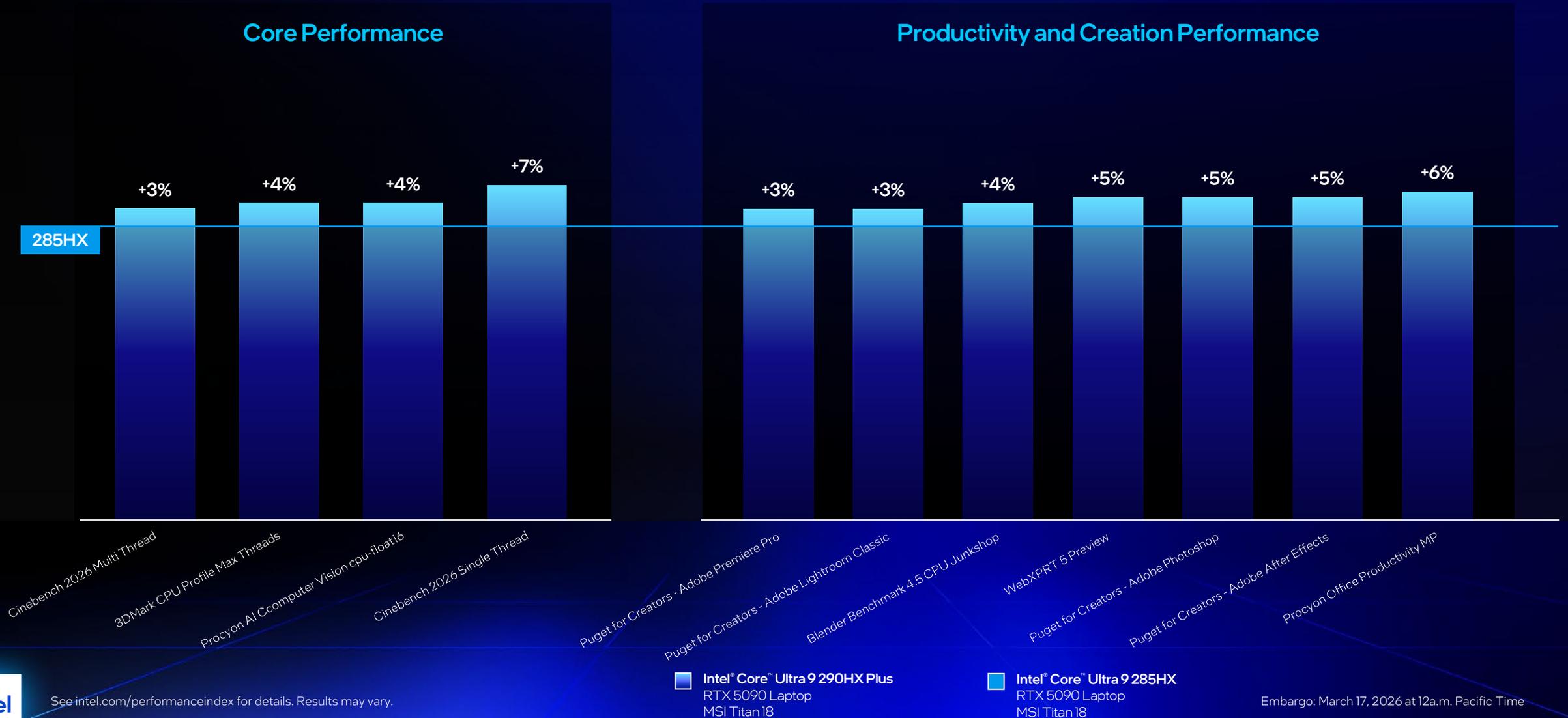


# Creating on Intel® Core™ Ultra 9 290HX Plus

vs. Intel® Core™ Ultra 9 285HX

## Core Performance

## Productivity and Creation Performance



Intel® Core™ Ultra 9 290HX Plus  
RTX 5090 Laptop  
MSI Titan 18

Intel® Core™ Ultra 9 285HX  
RTX 5090 Laptop  
MSI Titan 18

See [intel.com/performanceindex](https://www.intel.com/performanceindex) for details. Results may vary.

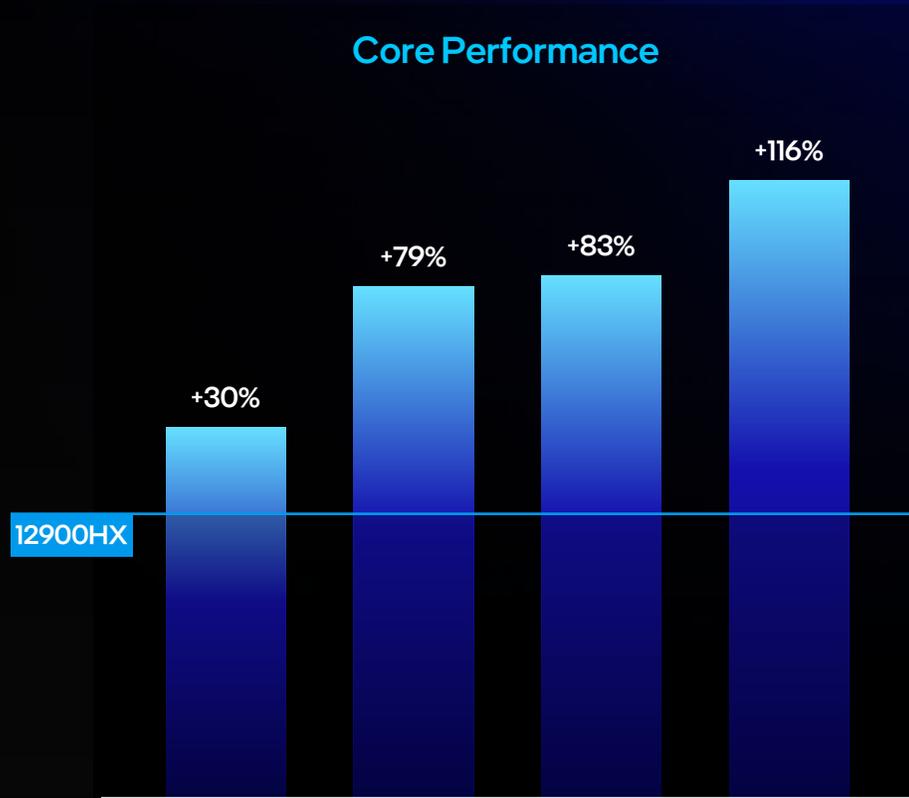
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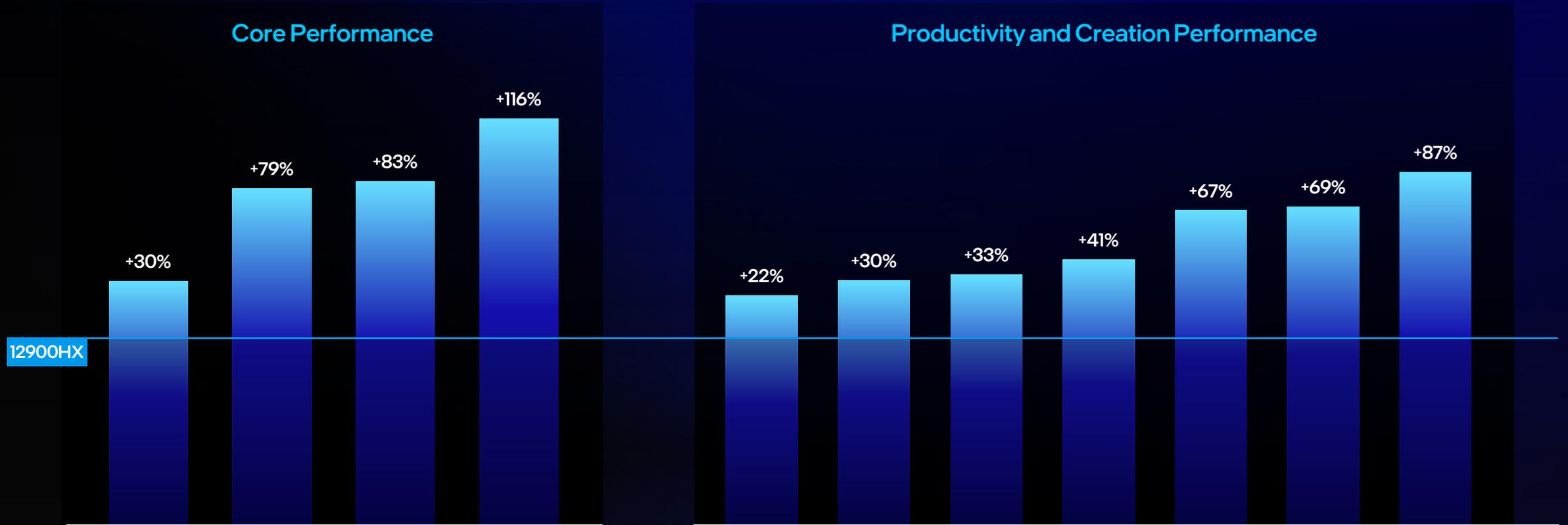
# Creating Performance: Four Year Upgrade

Intel® Core™ Ultra 9 290HX Plus vs. Intel® Core™ i9-12900HX

## Core Performance



## Productivity and Creation Performance



12900HX

Cinebench 2026 Single Thread  
3DMark CPU Profile Max Threads  
Cinebench 2026 Multi Thread  
Procyon AI Computer Vision cpu-float16

Puget for Creators - Adobe Photoshop  
Procyon Office Productivity MP  
Puget for Creators - Adobe Lightroom Classic  
WebXPRT 5 Preview  
Puget for Creators - Adobe After Effects  
Puget for Creators - Adobe Premiere Pro  
Blender Benchmark 4.5 CPU Junkshop

Intel® Core™ Ultra 9 290HX Plus  
RTX 5090 Laptop  
MSI Titan 18

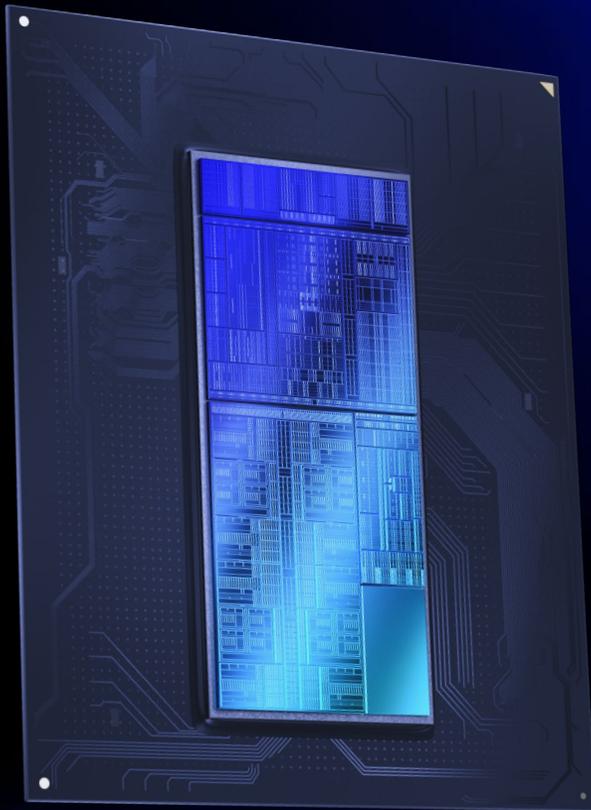
Intel® Core™ i9-12900HX  
RTX 3080 Ti Laptop  
MSI Titan 18

See [intel.com/performanceindex](https://www.intel.com/performanceindex) for details. Results may vary.

Embargo: March 17, 2026 at 12a.m. Pacific Time



# Intel Core Ultra 200HX



	Cores	Total threads	GPU cores	NPU TOPS	Max GHz	Die-to-die frequency
Intel® Core™ <b>Ultra 9 290HX Plus</b>	24 (8P+16E)	24	4	13	5.5	+900 MHz
Intel® Core™ <b>Ultra 9 285HX</b>	24 (8P+16E)	24	4	13	5.5	
Intel® Core™ <b>Ultra 9 275HX</b>	24 (8P+16E)	24	4	13	5.4	
Intel® Core™ <b>Ultra 7 270HX Plus</b>	20 (8P+12E)	20	4	13	5.3	+900 MHz
Intel® Core™ <b>Ultra 7 265HX</b>	20 (8P+12E)	20	4	13	5.3	
Intel® Core™ <b>Ultra 7 255HX</b>	20 (8P+12E)	20	4	13	5.2	
Intel® Core™ <b>Ultra 5 245HX</b>	14 (6P+8E)	14	3	13	5.1	
Intel® Core™ <b>Ultra 5 235HX</b>	14 (6P+8E)	14	3	13	5.1	

See [ark.intel.com](https://ark.intel.com) for additional details.



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ALIENWARE

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COLORFUL.

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top partners**

Starting March 17, 2026

HYPERX<sup>®</sup>

LEGION

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 机械革命  
MECHREVO

msi<sup>®</sup>

 ORIGIN

Puget  
systems

 RAZER<sup>™</sup>

# Notices and Disclaimers

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Performance varies by use, configuration and other factors. Learn more at [www.intel.com/PerformanceIndex](https://www.intel.com/PerformanceIndex).

Intel® Binary Optimization Tool is an optional feature available by switching on advanced mode of Intel® Application Optimization, which is a policy within Intel® Dynamic Tuning Technology that optimizes performance on select games when played on required configurations on select Intel® Core™ processors. Learn more at <https://www.intel.com/content/www/us/en/support/articles/000095419/processors.html> for additional details and see [ark.intel.com](https://ark.intel.com) for product details.

While Wi-Fi 7 is backward compatible with previous generations, new Wi-Fi 7 features require PCs configured with Intel Wi-Fi 7 solutions, PC OEM enabling, operating system support, and use with appropriate Wi-Fi 7 routers/APs/gateways. 6 GHz Wi-Fi 7 may not be available in all regions. More details at [www.intel.com/performance-wireless](https://www.intel.com/performance-wireless).

Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families.

The processor number is one of several factors, along with processor brand, specific system configurations, and system-level benchmarks, to be considered when choosing the right processor for your computing needs. A higher number within a processor class or family generally indicates more features, but it may be more of one and less of another. Once you decide on a specific processor brand and type, compare processor numbers to verify the processor includes the features you are looking for.

Some images may have been altered or simulated and are for illustrative purposes only.

All product plans and roadmaps are subject to change without notice.

No product or component can be absolutely secure. Intel technologies may require enabled hardware, software or service activation.

Your costs and results may vary.

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# *Appendix*

## Claim # & Statement

## Slide # & Title/Details

Claim # & Statement	Slide # & Title/Details
1. Up to 8% geomean faster gaming performance vs. previous generation across 32 games	Slide 6: Intel Core Ultra 9 290HX Plus Gaming vs. Intel® Core™ Ultra 9 285HX As measured by geomean of average FPS across 32 games at 1080p High on Intel® Core™ Ultra 9 290HX Plus, including benefits from Intel Binary Optimization Tool feature enabled on select titles, compared to Intel® Core™ Ultra 9 285HX. See <a href="http://www.intel.com/PerformanceIndex">www.intel.com/PerformanceIndex</a> for workloads and configurations. Results may vary.
2. Up to 62% geomean faster gaming performance vs. 4-year-old generation across 32 games	Slide 7: Intel Core Ultra 9 290HX Plus vs. Intel® Core™ i9-12900HX As measured by geomean of average FPS across 32 games at 1080p High on Intel® Core™ Ultra 9 290HX Plus, including benefits from Intel Binary Optimization Tool feature enabled on select titles, compared to Intel® Core™ i9 12900HX. See <a href="http://www.intel.com/PerformanceIndex">www.intel.com/PerformanceIndex</a> for workloads and configurations. Results may vary.
3. Up to 7% faster single-threaded performance vs. previous generation	Slide 8: Intel Core Ultra 9 290HX Plus Gaming vs. Intel® Core™ Ultra 9 285HX As measured by Cinebench 2026 Single Thread on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ Ultra 9 285HX. See <a href="http://www.intel.com/PerformanceIndex">www.intel.com/PerformanceIndex</a> for workloads and configurations. Results may vary.
4. Up to 3% faster multi-threaded performance vs. previous generation	As measured by Cinebench 2026 Multi Thread on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ Ultra 9 285HX. See <a href="http://www.intel.com/PerformanceIndex">www.intel.com/PerformanceIndex</a> for workloads and configurations. Results may vary.
5. Up to 4% faster multi-threaded performance vs. previous generation	As measured by 3DMark CPU Profile Max Threads on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ Ultra 9 285HX. See <a href="http://www.intel.com/PerformanceIndex">www.intel.com/PerformanceIndex</a> for workloads and configurations. Results may vary.
6. Up to 6% faster productivity performance vs. previous generation	As measured by UL Procyon Office Productivity MP on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ Ultra 9 285HX. See <a href="http://www.intel.com/PerformanceIndex">www.intel.com/PerformanceIndex</a> for workloads and configurations. Results may vary.
7. Up to 5% faster web-browsing performance vs. previous generation	As measured by WebXPRT5 (Chrome) on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ Ultra 9 285HX. See <a href="http://www.intel.com/PerformanceIndex">www.intel.com/PerformanceIndex</a> for workloads and configurations. Results may vary.
8. up to 3% faster video editing performance vs. previous generation	As measured by PugetBench Adobe Premiere Pro Standard score on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ Ultra 9 285HX. See <a href="http://www.intel.com/PerformanceIndex">www.intel.com/PerformanceIndex</a> for workloads and configurations. Results may vary.
9. Up to 3% faster photo editing performance vs. previous generation	As measured by PugetBench Adobe Lightroom Classic Standard score on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ Ultra 9 285HX. See <a href="http://www.intel.com/PerformanceIndex">www.intel.com/PerformanceIndex</a> for workloads and configurations. Results may vary.
10. Up to 5% faster video editing performance vs. previous generation	As measured by PugetBench Adobe After Effects Standard score on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ Ultra 9 285HX. See <a href="http://www.intel.com/PerformanceIndex">www.intel.com/PerformanceIndex</a> for workloads and configurations. Results may vary.
11. Up to 5% faster photo editing performance vs. previous generation	As measured by PugetBench Adobe Photoshop Standard score on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ Ultra 9 285HX. See <a href="http://www.intel.com/PerformanceIndex">www.intel.com/PerformanceIndex</a> for workloads and configurations. Results may vary.
12. Up to 4% faster 3D rendering performance vs. previous generation	As measured by Blender Benchmark Junkshop sub-score on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ Ultra 9 285HX. See <a href="http://www.intel.com/PerformanceIndex">www.intel.com/PerformanceIndex</a> for workloads and configurations. Results may vary.

## Claim # & Statement

## Slide # & Title/Details

Slide 9: Intel® Core™ Ultra 9 290HX Plus Gaming vs. Intel® Core™ i9 12900HX

13. Up to 30% faster single-threaded performance vs. 4-year-old generation generation

As measured by Cinebench 2026 Single Thread on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ i9 12900HX. See [www.intel.com/PerformanceIndex](http://www.intel.com/PerformanceIndex) for workloads and configurations. Results may vary.

14. Up to 83% faster multi-threaded performance vs. 4-year-old generation generation

As measured by Cinebench 2026 Multi Thread on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ i9 12900HX . See [www.intel.com/PerformanceIndex](http://www.intel.com/PerformanceIndex) for workloads and configurations. Results may vary.

15. Up to 79% faster multi-threaded performance vs. 4-year-old generation generation

As measured by 3DMark CPU Profile Max Threads on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ i9 12900HX . See [www.intel.com/PerformanceIndex](http://www.intel.com/PerformanceIndex) for workloads and configurations. Results may vary.

16. Up to 30% faster productivity performance vs. 4-year-old generation

As measured by UL Procyon Office Productivity MP on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ i9 12900HX . See [www.intel.com/PerformanceIndex](http://www.intel.com/PerformanceIndex) for workloads and configurations. Results may vary.

17. Up to 41% faster web-browsing performance vs. 4-year-old generation

As measured by WebXPRT5 (Chrome) on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ i9 12900HX . See [www.intel.com/PerformanceIndex](http://www.intel.com/PerformanceIndex) for workloads and configurations. Results may vary.

18. up to 69% faster video editing performance vs. 4-year-old generation

As measured by PugetBench Adobe Premiere Pro Standard score on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ i9 12900HX . See [www.intel.com/PerformanceIndex](http://www.intel.com/PerformanceIndex) for workloads and configurations. Results may vary.

19. Up to 22% faster photo editing performance vs. 4-year-old generation

As measured by PugetBench Adobe Lightroom Classic Standard score on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ i9 12900HX . See [www.intel.com/PerformanceIndex](http://www.intel.com/PerformanceIndex) for workloads and configurations. Results may vary.

20. Up to 67% faster video editing performance vs. 4-year-old generation

As measured by PugetBench Adobe After Effects Standard score on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ i9 12900HX . See [www.intel.com/PerformanceIndex](http://www.intel.com/PerformanceIndex) for workloads and configurations. Results may vary.

21. Up to 22% faster photo editing performance vs. 4-year-old generation

As measured by PugetBench Adobe Photoshop Standard score on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ i9 12900HX . See [www.intel.com/PerformanceIndex](http://www.intel.com/PerformanceIndex) for workloads and configurations. Results may vary.

22. Up to 87% faster 3D rendering performance vs. 4-year-old generation

As measured by Blender Benchmark Junkshop sub-score on Intel® Core™ Ultra 9 290HX Plus compared to Intel® Core™ i9 12900HX . See [www.intel.com/PerformanceIndex](http://www.intel.com/PerformanceIndex) for workloads and configurations. Results may vary.

# Configuration Details:

Performance results are based on testing as of 03/6/2026

	MSI Titan 18 HX A2WJ	MSI Titan 18	MSI Titan 18 GT77 HX
<b>CPU</b>	Intel Core Ultra 9 290HX Plus	U9 285HX	i9-12900HX
<b>Cores/Threads</b>	8P16E=24C24T	8P16E=24C24T	16C24T
<b>Memory</b>	64GB DDR5-6400	2x32GB DDR5-6400MHz	4x16GB DDR5-4000MHz
<b>Max Boost Clock (Freq)</b>	5.5 GHz	5.5 GHz	5.0 GHz
<b>Storage</b>	Samsung SSD 9100 PRO 1TB 931.51GB	Samsung SSD 9100 PRO 1TB	Samsung SSD 9100 PRO 1TB
<b>OS</b>	Windows 11 Pro	Windows 11 Pro	Windows 11 Pro
<b>OS Version</b>	26200.6899 (25H2)	26200.7840 (25H2)	26200.7840 (25H2)
<b>Chrome Version</b>	v145	v145	v145
<b>Graphics(Integrated)</b>	Intel Graphics	Intel® UHD Graphics	Intel® UHD Graphics
<b>Graphics Driver Version (Integrated)</b>	32.0.101.8331	32.0.101.8425	32.0.101.7084
<b>Graphics (Discrete)</b>	NVIDIA GeForce RTX 5090 Laptop GPU	NVIDIA GeForce RTX 5090 Laptop GPU	NVIDIA GeForce RTX 3080 Ti Laptop GPU
<b>Graphics Driver (Discrete)</b>	591.86 - 32.0.15.9186	591.86 - 32.0.15.9186	591.86 - 32.0.15.9186
<b>Graphics TGP</b>	175 W	175 W	175 W
<b>NPU</b>	Intel AI Boost	Intel® AI Boost	N/A
<b>NPU Driver Version</b>	32.0.100.4512	32.0.100.4512	N/A
<b>Resolution (Native)</b>	3840 x 2400	3840x2400	3840x2160
<b>Display Scale</b>	200	200	250
<b>Battery Size - Designed Capacity (Wh)</b>	95.00	95.00	95.00
<b>Battery Size - Full Charged Capacity (Wh)</b>	91.23	92.14	71.58
<b>PC BIOS</b>	E1824IMS.505 (01/27/2026)	E1824IMS.119, 11/28/2025	E17Q1IMS.112, 7/4/2023
<b>Screen Size</b>	18"	17.3"	17.3"
<b>Touch Screen (Yes or No)</b>	No	No	No
<b>Screen Type (4k OLED, 2k OLED, FHD, FHD+, etc)</b>	4K LCD	4K LCD	4K LCD
<b>Power Plan</b>	Balanced	Balanced	Balanced
<b>Power Mode (Win 11 Feature)</b>	Best Performance	Best Performance	Best Performance
<b>Power App Setting (OEM's App)</b>	MSI Center = Extreme Performance	MSI Center = Extreme Performance	MSI Center = Extreme Performance
<b>VBS</b>	Enabled and running	Running	Running
<b>Defender</b>	Running	Running	Running
<b>Tamper Protection</b>	Running	Running	Running