

Intel® Core™ Ultra 200S Plus Series Processors

Quick Reference Guide



***Intel's fastest
desktop gaming
processor¹***




Offering

- **FAST** Gaming
- **POWERFUL** Compute
- **ROBUST** Platform

★★★
New

- DDR5 Support (Up to 7200 MT/s)²
- Available Intel® Binary Optimization Tool¹⁴
- Intel® Platform Performance Package

↑
Increased

- Up to **16** E-cores, Up to 8 P-cores
- Up to **24** Threads
- Up to **36** MB Shared Intel® Smart Cache L3


Featuring

- Intel® 200S Boost³
- Full **Intel® 800 Series Chipset** compatibility
- Integrated Thunderbolt™ 4, Discrete Thunderbolt™ 5

For numbered references, see [notices and disclaimers](#) section.

1. As of March 2026, among all Intel desktop processors targeting ~125W TDP, based on superior gaming performance of Intel® Core™ Ultra 7 270K Plus processor, including benefit of Intel Binary Optimization Tool feature when enabled on select titles, as measured by average FPS @1080p - high settings, geomean of 37 games. See intel.com/performanceindex for details. Results may vary.

Comparison vs. Previous Gen

	Intel® Core™ Ultra Processors (Series 2) Intel® Core™ Ultra 5 and Intel® Core™ Ultra 7 Processors	Intel® Core™ Ultra 200S Plus Series Processors Intel® Core™ Ultra 5 and Intel® Core™ Ultra 7 Processors
Brand Levels	 	 
Codename	Arrow Lake-S	Arrow Lake-S Refresh
Target Audience	Everyday Gamers, Creators, and Professionals	Enthusiast Gamers and Creators
Key Features	▪ Up to 20 cores (8+12) ▪ Up to 20 threads ▪ Up to 30 MB L3 Intel® Smart Cache ▪ DDR5-6400 maximum memory speed supported	▪ Up to 24 cores (8+16) ▪ Up to 24 threads ▪ Up to 36 MB L3 Intel® Smart Cache ▪ DDR5-7200 maximum memory speed supported² ▪ NEW Intel® Binary Optimization Tool

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Processor Brand & Number ⁴	Processor Cores (P+E) ⁵	Processor Threads	Intel® Smart Cache L3 (MB)	Total L2 Cache (MB)	Processor Turbo Frequency				Processor Base Frequency		Unlocked ⁸	Integrated GPU	CPU PCIe Lanes	Maximum Memory Speed (MT/s) ²	Memory Channels	Maximum Memory Capacity (GB) ²	Processor Base Power (W)	Maximum Turbo Power (W)	Reliability, Availability & Serviceability ⁹	Intel® SIPP ¹⁰	Intel® Eligibility		Boxed
					Intel® Thermal Velocity Boost Frequency (GHz) ⁶	Intel® Turbo Boost Max Technology 3.0 Frequency (GHz) ⁶	P-core Max Turbo Frequency (GHz) ⁶	E-core Max Turbo Frequency (GHz) ⁷	P-core Base Frequency (GHz)	E-core Base Frequency (GHz) ⁷											Intel® vPro ^{®9,11,12,13}	Intel® ISM ^{11,13}	
 Intel® Core™ Ultra 7 270K Plus Processor	24 (8+16)	24	36	40	–	Up to 5.5	Up to 5.4	Up to 4.7	3.7	3.2	Yes	Intel® Graphics	24	DDR5 -7200	2	256	125	250	ECC	–	Yes	Yes	Yes
 Intel® Core™ Ultra 5 250K Plus Processor	18 (6+12)	18	30	30	–	–	Up to 5.3	Up to 4.6	4.2	3.3	Yes	Intel® Graphics	24	DDR5 -7200	2	256	125	159	ECC	–	Yes	Yes	Yes
 Intel® Core™ Ultra 5 250KF Plus Processor	18 (6+12)	18	30	30	–	–	Up to 5.3	Up to 4.6	4.2	3.3	Yes	–	24	DDR5 -7200	2	256	125	159	–	–	–	Yes	Yes

Socket LGA 1851

Notices & Disclaimers

All versions of the Intel vPro® require an eligible Intel® processor, a supported operating system, Intel® LAN and/or WLAN silicon, firmware enhancements, and other hardware and software necessary to deliver the manageability use cases, security features, system performance, and stability that define the . See www.intel.com/PerformanceIndex for details.

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 for product details.

Overclocking: Altering clock frequency or voltage may void any product warranties and reduce stability, security, performance, and life of the processor and other components. Check with system and component manufacturers for details.

AI features may require software purchase, subscription, or enablement by a software or provider, or may have specific configuration or compatibility requirements. Data latency, cost, and privacy advantages refer to non-cloud-based AI apps. Learn more at intel.com/AIPC.

Performance varies by use, configuration, and other factors. Learn more at www.Intel.com/PerformanceIndex.

Performance results are based on testing as of dates shown in configurations and may not reflect all publicly available updates. See backup for configuration details. No product or component can be absolutely secure.

Results that are based on pre-production systems and components as well as results that have been estimated or simulated using an Intel Reference Platform (an internal example new system), internal Intel analysis or architecture simulation or modeling are provided to you for informational purposes only.

Your costs and results may vary.

Intel technologies may require enabled hardware, software or service activation.

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1. Intel® Core™ Ultra 200S Plus series delivers Intel's fastest desktop gaming processor: As of March 2026, refers to Intel® Core™ Ultra 7 270K Plus processor among all Intel desktop processors targeting ~125W TDP, based on superior gaming performance, including benefit of Intel Binary Optimization Tool feature when enabled on select titles, as measured by average FPS @1080p - high settings, geomean of 37 games, including:

A Plague Tale: Requiem, Anno 117: Pax Romana, Assassin's Creed: Mirage, Assassin's Creed: Shadows, Baldur's Gate 3, Battlefield 6, Black Myth Wukong, Borderlands 3, Call of Duty: Black Ops 7, Company of Heroes 3, Counter Strike 2, Cyberpunk 2077, DOOM: The Dark Ages, Dying Light: The Beast, F1® 25, Far Cry 6, Final Fantasy XIV, Forza Horizon 5, Ghosts of Tsushima, Hitman 3 (World of Assassination), Hogwarts Legacy, Horizon Forbidden West, League of Legends, Marvel's Spider Man – Remastered, Metro Exodus, Naraka Bladepoint, Red Dead Redemption 2, Remnant II, Shadow of the Tomb Raider, Star Wars Outlaws, Starfield, Tiny Tina's Wonderlands, Tom Clancy's: Rainbow Six Siege X, Total War: Warhammer III, Valorant, Watch Dogs Legion, World of Warcraft: The War Within

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 for product details.

Performance results are based on testing as of 02/27/2026.:

Processor: Intel Core Ultra 7 270K Plus (Arrow Lake R); TDP=250W; tested in Asus ROG MAXIMUS Z890 HERO motherboard; Memory: 32GB(2x16GB) DDR5 7200; Memory Timings: 34-45-45-45-115; Storage: Samsung SSD - 990 PRO 4TB; Display Resolution: 1980x1080; OS: Windows 11 Pro 26200.7623; Integrated Graphics: Intel Graphics; Integrated Graphics Driver: 32.0.101.8331; Discrete Graphics: NVIDIA GeForce RTX 5090; Discrete Graphics Driver: 32.0.15.9174; NPU Driver: 32.0.100.4514; BIOS: AMI 99501/23/2026 ; Power Plan set to High Performance, Power Mode set to High Performance.

Processor: Intel Core Ultra 9 285K (Arrow Lake) TDP=250W; tested in Asus ROG MAXIMUS Z890 HERO; Memory: 32GB(2x16GB) DDR5 6400; Memory Timings: 32-5-5-5-102; Storage: Samsung SSD - 990 PRO 4TB; Display Resolution: 1980x1080; OS: Windows 11 26200.7623; Integrated Graphics: Intel Graphics; Integrated Graphics Driver: 32.0.101.8331; Discrete Graphics: NVIDIA GeForce RTX 5090; Graphics Driver: 32.0.15.9174; NPU Driver: 32.0.100.4514; BIOS: 2302; Power Plan set to High Performance, Power Mode set to High Performance.

Processor: Intel Core i9 14900K (Raptor Lake R) TDP=253W; tested in Asus ROG MAXIMUS Z790 HERO; Memory: 32GB(2x16GB) DDR5 6400; Memory Timings: 30-36-36-36-96; Storage: Samsung SSD - 990 PRO 4TB; Display Resolution: 1980x1080; OS: Windows 11 26200.7623; Integrated Graphics: Intel Graphics; Integrated Graphics Driver: 32.0.101.7082; Discrete Graphics: NVIDIA GeForce RTX 5090; Graphics Driver: 32.0.15.9174; NPU Driver: N/A; BIOS: 3107 BIOS; Power Plan set to High Performance, Power Mode set to High Performance.

Notices & Disclaimers

2. **Memory Support:** Maximum memory speeds are associated with 1 DIMM per Channel (1DPC) configurations. Additional DIMM loading on any channel may impact maximum memory speed. Up to DDR5-7200 MT/s 1DPC CUDIMM 1Rx8, 1Rx16, 2Rx8. Maximum memory capacity is achievable with 2DPC configurations. For additional 2DPC configuration details, refer to ark.intel.com.
3. **Intel® 200S Boost:** When paired with compatible Intel® Z890 motherboards and appropriate Intel® XMP memory modules.
4. **Processor Numbers:** Intel® processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families.
5. **Processor Cores:** Processor cores listed first are the total number of cores in the processor. The number of Performance-cores and the number of Efficient-cores are listed in parentheses (P+E).
6. **Boost Frequencies:** Intel® Turbo Boost Max Technology 3.0, and Intel® Thermal Velocity Boost are only available on Performance-cores.
7. **E-core Frequencies:** Efficient-core frequencies are lower to optimize power usage. The frequency of cores and core types varies by workload, power consumption, and other factors. Visit www.intel.com/technology/turboboost for more information.
8. **Overclocking:** Altering clock frequency or voltage may void any product warranties and reduce stability, security, performance, and life of the processor and other components. Check with system and component manufacturers for details.
9. **Reliability, Availability, Serviceability / Intel vPro® / Intel® Standard Manageability (ISM):** When paired with the eligible Intel® W880 Series chipset SKU, a motherboard with supporting hardware and software, and potential service activation.
10. **Intel® Stable IT Platform Program (SIPP):** Eligible for Intel® Stable IT Platform Program (Intel® SIPP) starting with Arrow Lake-S Commercial platform availability.
11. **Intel vPro® Support (1):** All versions of the Intel vPro® require an eligible Intel® processor, a supported operating system, Intel® LAN and/or WLAN silicon, firmware enhancements, and other hardware and software necessary to deliver the manageability use cases, security features, system performance, and stability that define the platform. See www.intel.com/performance-vpro for details.
12. **Intel vPro® Support (2):** Intel vPro® Enterprise with Intel® Active Management Technology (Intel® AMT).
13. **Intel vPro® / Intel® Standard Manageability:** When paired with the eligible Intel® Q880 Series chipset SKU, a motherboard with supporting hardware and software, and potential service activation.
14. **Intel® Binary Optimization Tool:** 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 for product details.