Quick Reference Guide

Intel® Core™ Processors HX-Series (14th Gen)

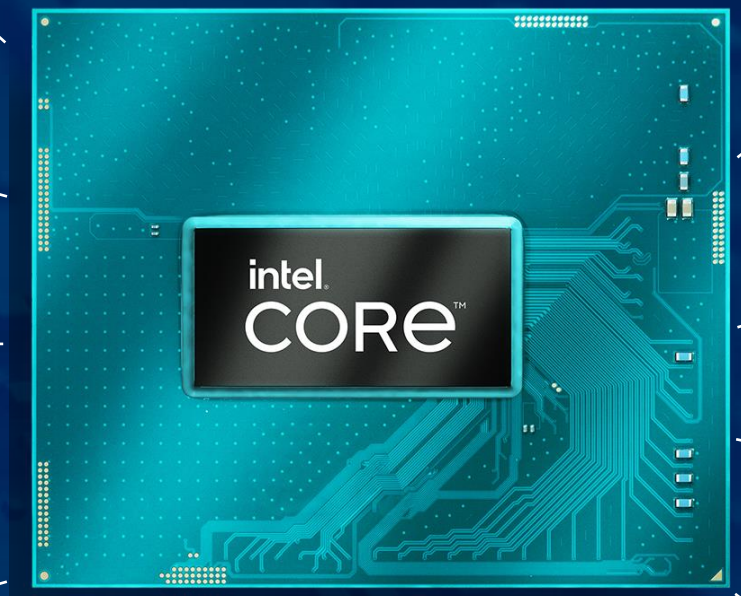
IMPROVED P-core performance

MORE P-core and E-cores for Intel® Core™ i7 Processors HX-series (14th Gen)

NEW Discrete Intel® Wi-Fi 7 (5 Gig) Support[1]

ENHANCED gaming performance with **NEW** Intel® Application Optimization (Intel® Dynamic Tuning Technology)[2]

INCREASED Intel® Smart Cache (L3) and L2 cache[3]



NEW Thunderbolt™ 5 Technology Support

SUPPORT for DDR5 (Up to 5600 MT/s) and DDR4 (Up to 3200 MT/s)[10]

LARGER Max Memory Capacity (Up to 192 GB)

INCLUDES Performance Hybrid Architecture[4] and Intel® Thread Director[5]

For numbered references, see notices and disclaimers section.

Intel® Core™ HX-Series Processors (14th gen)

Specification Table

Processor Number[6]	Processor Cores (P-cores + E-cores)[7]	Processor Threads	Intel® Smart Cache (LLC)	Max Turbo Frequency[8]		Overclocking[9]			Graphics Max Frequency	Processor Graphics	Total PCIe Lanes	Max Memory Speed[10]	Maximum Memory Capacity	Processor Base Power	Maximum Turbo Power
				P-core	E-core	CPU	GFX	Memory							
Intel® Core™ i9 Processor 14900HX	24 (8 +16)	32	36 MB	Up to 5.8 GHz	Up to 4.1 GHz	✓	✓	✓	Up to 1.65 GHz	Intel® UHD Graphics	1x16 Gen5 + 1x4 Gen4 (CPU) 1x16 Gen4 + 1x 12 Gen3 (PCH)	DDR5 – 5600 DDR4 – 3200	192 GB	55 W	157 W
Intel® Core™ i7 Processor 14700HX	20 (8 +12)	28	33 MB	Up to 5.5 GHz	Up to 3.9 GHz	✓	✓	✓	Up to 1.6 GHz						
Intel® Core™ i7 Processor 14650HX	16 (8+8)	24	30 MB	Up to 5.2 GHz	Up to 3.7 GHz	✓	✓	✓	Up to 1.6 GHz						
Intel® Core™ i5 Processor 14500HX	14 (6+8)	20	24 MB	Up to 4.9 GHz	Up to 3.5 GHz	✓	✓	✓	Up to 1.55 GHz						
Intel® Core™ i5 Processor 14450HX	10 (6+4)	16	20 MB	Up to 4.8 GHz	Up to 3.5 GHz	✓	✓	✓	Up to 1.5 GHz						

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Notices & Disclaimers

Performance varies by use, configuration, and other factors. Learn more on the Performance Index site.

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.

Your costs and results may vary.

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

1. Subject to regional availability, operating system support, and router compatibility. Learn more at https://www.intel.com/content/www/us/en/products/docs/wireless/wi-fi-7.html.
2. Intel® Application Optimization is a policy within Intel® Dynamic Tuning Technology that optimizes performance on select games, with the required configurations on select Intel® Core™ 14th Gen processors. See www.intel.com/PerformanceIndex. Results may vary.
3. Intel® Core™ i5 processors HX-series (14th gen) and Intel® Core™ i7 processors HX series (14th gen) only.
4. Performance hybrid architecture combines two core microarchitectures, Performance-cores (P-cores) and Efficient-cores (E-cores), on a single processor die first introduced on 12th Gen Intel® Core™ processors. Select 12th Gen and newer Intel® Core™ processors do not have performance hybrid architecture, only P-cores, and have same cache size as prior generation. Intel® Core™ i3 N-series processors only have E-cores. See ark.intel.com for SKU details.
5. Built into the hardware, Intel® Thread Director is provided only in performance hybrid architecture configurations of 12th Gen or newer Intel® Core™ processors; OS enablement is required. Available features and functionality vary by OS.
6. Intel® processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families.
7. 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).
8. The frequency of cores and core types varies by workload, power consumption, and other factors. See ark.intel.com for SKU details.
9. Unlocked features are present with select chipsets and processor combinations. 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.
10. 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 DDR5-5600 MT/s 1DPC UDIMM 1Rx8, 1Rx16 and DDR5-5200 1Rx8, 1Rx16, 2Rx8 on select SKUs. Maximum memory capacity is achievable with 2DPC configurations. For additional 2DPC configuration details, see ark.intel.com for SKU details.