



Intel® Core™ i5-12600K Processor

Good single-core performance.



12th Gen Intel® Core™ i7-12700K Processor

The processor for enthusiasts, sitting at the price/performance sweet spot and offering high-end features.



Intel® Core™ i9-12900K Processor

Performance without compromise.



Intel® Turbo Boost Max Technology 3.0

This powerful combination of hardware and software optimizes performance by directing critical workloads to your fastest cores. 12th Gen Intel® Core™ i7 processors are the first tier to offer this, followed by 12th Gen Intel® Core™ i9 processors.



8 P-Cores

Intel® Core™ i7-12700K processors feature 8 high-performance Performance-cores (P-cores), the same number of P-cores as Intel® Core™ i9-12900K processors!



Performance Hybrid Architecture and Intel® Thread Director^{1,2}

12th Gen Intel® Core™ i7 processors are the entry tier for Performance Hybrid Architecture, a groundbreaking new technology that combines two purpose-built microarchitectures on a single processor. P-cores are designed to handle single- and multi-threaded tasks, while Efficient-cores (E-cores) handle multi-threaded and background tasks. Intel® Thread Director prioritizes and manages distribution of workloads, sending tasks to optimized cores.



High Base Frequency

Although Intel® Core™ i9-12900K processors have a slightly higher Intel® Turbo Boost Max Technology 3.0 frequency, Intel® Core™ i7-12700K processors have a higher single P-core base frequency.

Processor	Cores (P-cores + E-cores) ³	Threads	Intel® Turbo Boost Max Technology 3.0 Frequency ⁴	Single P-core Base Frequency	Recommended Customer
Intel® Core™ i9-12900K Processor	16 (8+8)	24	Up to 5.2 GHz	3.2 GHz	When performance is the only consideration.
Intel® Core™ i7-12700K Processor	12 (8+4)	20	Up to 5.0 GHz	3.6 GHz	The price/performance champion.
Intel® Core™ i5-12600K Processor	10 (6+4)	16	n/a	3.7 GHz	A good choice for single-threaded tasks.



intel.
partner alliance

Visit Intel® Partner Alliance
for More Support, Sales
Materials, and Training

1. Available only on 12th Gen Intel® Core™ processors featuring performance hybrid architecture.
2. Intel® Thread Director is designed into 12th Gen Intel® Core™ desktop processors and helps supporting operating systems more intelligently channel workloads. No user action required. See intel.com for details.
3. Processor cores listed first are the total number of cores in the processor followed by the number of P-cores and E-cores in parentheses (P+E).
4. Intel® Turbo Boost Max Technology 3.0 is only available on Performance-cores.

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.

Your costs and results may vary.

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

© Intel Corporation. Intel, the Intel logo, and other Intel marks are trademarks of Intel Corporation or its subsidiaries. Other names and brands may be claimed as the property of others.