



Intel's Best-in-Class Performance

THE 8TH GEN INTEL® CORE™ DESKTOP PROCESSOR FAMILY

From first time buyers to performance-hungry professionals, 8th Gen Intel® Core™ processors fit a wide range of user needs and budgets. Use the talking points below to inform your customers about the features and benefits of the 8th Gen Intel® Core™ processors.

Place your order today!

8th Gen Intel® Core™ processors redefine mainstream desktop PC performance with more cores for accelerated processing power. This new generation of processors extends all the capabilities users have come to expect, with advanced innovations, and exciting new features.

8TH GEN INTEL® CORE™ PROCESSOR FEATURES & BENEFITS



Amazing Responsiveness: Compatible with Intel® Optane™ memory system accelerator for outstanding system responsiveness.¹



Superior Performance: Better desktop productivity and performance versus 7th Gen Intel® Core™ processors.



More Cores: Accelerated processing power and desktop PC performance with up to six cores—that's two more cores than the previous generation of Intel® Core™ processors.



Boosted Power: Intel® Turbo Boost 2.0 technology gives your desktop PC an extra boost of power when you need it.



Enhanced Full Range Base-Clock Tuning: Provides more control and granularity for overclocking your platform with unlocked Intel® Core™ processors.²



Virtual Reality Ready: Delivers balanced platform performance for great VR experiences.



Immersive 4K UHD Visuals: With HEVC 10-bit encode/decode and VP9 10-bit decode, your PC can integrate advanced media technologies that bring premium, high-quality content to your desktop.

PROCESSOR COMPARISON

From content creation to gaming to business use, Intel has a wide range of processors to suit end user needs.

	8th Gen Intel® Core™ i7 Processors	8th Gen Intel® Core™ i5 Processors	8th Gen Intel® Core™ i3 Processors	7th Gen Intel® Core™ i7 Processors	7th Gen Intel® Core™ i5 Processors	7th Gen Intel® Core™ i3 Processors	Intel® Core™ i9X Processors	Intel® Core™ i7X Processors	Intel® Core™ i5X Processors
Maximum Processor Frequency (GHz)	Up to 4.7	Up to 4.3	Up to 4.0	Up to 4.5	Up to 4.2	Up to 4.2	Up to 4.3	Up to 4.5	Up to 4.2
Number of Processor Cores/Threads	6/12	6/6	4/4	4/8	4/4	2/4	Up to 18/36	Up to 8/16	4/4
Cache Size (MB)	12	9	Up to 8	8	6	Up to 4	Up to 24.75	Up to 11	6
Intel® Turbo Boost Technology 2.0	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes
Intel® Hyper-Threading Technology³	Yes	No	No	Yes	No	Yes	Yes	Yes	No
CPU/Graphics/Memory Overclocking²	Yes (on select SKUs)	Yes (on select SKUs)	Yes (on select SKUs)	Yes (on select SKUs)	Yes (on select SKUs)	Yes (on select SKUs)	Yes	Yes	Yes
Memory Type	DDR4-2666	DDR4-2666	DDR4-2400	DDR4-2133/2400 @1.2V DDR3L1333/1600 @1.3V	DDR4-2133/2400 @1.2V DDR3L1333/1600 @1.3V	DDR4-2133/2400 @1.2V DDR3L1333/1600 @1.3V	DDR4-2666	DDR4-2666	DDR4-2666
Number of Memory Channels	2	2	2	2	2	2	4	Up to 4	2
Intel® Optane™ Memory Support¹	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

PLACE YOUR ORDER TO SECURE INVENTORY TODAY.

For more information, www.intel.com/content/www/us/en/partner/where-to-buy/overview.html

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more complete information visit www.intel.com/benchmarks.

¹ Benchmark results were obtained prior to implementation of recent software patches and firmware updates intended to address exploits referred to as "Spectre" and "Meltdown". Implementation of these updates may make these results inapplicable to your device or system.

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³ Intel® Optane™ memory requires specific hardware and software configuration. Visit www.intel.com/Optanememory for configuration requirements.

⁴ WARNING: Altering clock frequency and/or voltage may: (i) reduce system stability and useful life of the system and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warranty, the operation of the processor beyond its specifications. Intel assumes no responsibility that the processor, including if used with altered clock frequencies and/or voltages, will be fit for any particular purpose. For more information, visit: <https://www.intel.com/consumer/game/gaming-power.htm>

⁵ Available on select Intel® processors. Requires an Intel® HT Technology-enabled system. Consult your system manufacturer. Performance will vary depending on the specific hardware and software used. For more information including details on which processors support HT Technology, visit <http://www.intel.com/info/hyperthreading.78>
This feature may not be available on all computing systems. Please check with the system vendor to determine if your system delivers this feature, or reference the system specifications (motherboard, processor, chipset, power supply, HDD, graphics controller, memory, BIOS, drivers, virtual machine monitor-VMM, platform software, and/or operating system) for feature compatibility. Functionality, performance, and other benefits of this feature may vary depending on system configuration.

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