

Intel® Processor and Intel® Core™ i3 N-series Processors

Intel N-series processors deliver the performance you need at the affordability you want to connect, learn and play anywhere. The Gracemont CPU micro-architecture built on the latest Intel 7 process features up to 8 efficient cores ("E-cores"), enabling easy, responsive, streamlined experiences. Collaborate and stream with confidence with Intel® Wi-Fi 6E (Gig+), next-gen Intel® UHD Graphics, enhanced Image Processing Unit (IPU 6) and enabled long-lasting battery life. And for the first time, you can scale up to Intel® Core™ i3 within an N-series platform for a 3.8 GHz turbo frequency. Choose your laptop or desktop, Chrome or Windows, and enjoy a balance of performance and value for the essential, entry-level PC that's right for you.



Immersive Collaboration and Learning

As teaching and learning evolve, PCs must evolve too. With a suite of advanced platform technologies, Intel N-series processors allow students and educators to immerse, engage and learn in new ways. Ultra-fast Intel® Wi-Fi 6E (Gig+) enables up to 3X faster speeds than Wi-Fi 5¹ for connectivity anywhere—from multi-client homes, to school, or even low-connectivity environments. N-series processors include an improved Image Processing Unit (IPU 6) that supports higher resolution cameras at a lower cost, GNA 3.0 for intelligent noise suppression* and support for a MIPI camera that adjusts for low-light conditions. Teachers and students can boost learning time with up to 28%² faster load speeds while videoconferencing and multi-tasking on school projects. Whether in the classroom, at home, or on-the-go, N-series processors enable students to collaborate, communicate and learn with confidence, all without needing to connect to a power source for an entire school day.³

Scaled Up Performance and Value

With the Gracemont CPU microarchitecture built on the Intel 7 process, the newest Intel N-series processors bring dynamic performance advancements in an affordable, entry-level device. N-series processors give you flexibility to select the best processor for your needs—choose a 4-E-core Intel® Processor for 28%⁴ better overall application performance, or scale up to an 8-E-core Intel® Core™ i3 N-series processor for an additional 42%⁵ step-up in performance. Users can experience 28%⁶ faster browsing and 31%⁷ better office productivity to accomplish more. Intel N-series processors harness power and efficiency to support learning, browsing and productivity at an affordable cost.



Play and Stream Anywhere, All Day

At home or on the go, Intel N-series processors deliver affordable performance to play, create and stream. Enjoy casual gaming with up to 64%⁸ better graphics performance on Intel® Processor—and an additional 55%⁹ step-up in graphics performance with Intel® Core™ i3 N-series processor. Enhance creativity with high-quality color depth and up to 12%¹⁰ faster photo and video editing. Enjoy up to 10 hours of battery life¹¹ while streaming video at 1080p resolution. Boost your display visibility with Local Adaptive Contrast Enhancement (LACE*), even in bright sunlight. Cast on 3 simultaneous displays with up to 4KHDR resolution on one. Intel N-series processors deliver amazing streaming and playing experiences.

INTEL® N-SERIES PROCESSORS FEATURES AT A GLANCE

INTEL® CORE™ i3 N-SERIES PROCESSORS	intel. CORE i3	intel. CORE i3
	Intel® Core™ i3-N305	Intel® Core™ i3-N300
Max Turbo Frequency	Up to 3.8 GHz	Up to 3.8 GHz
Number of Processor Cores/Threads	8/8	8/8
L3 Cache	6 MB	6 MB
Number of Memory Channels	1	1
Memory Type	LPDDR5 4800 MT/s DDR5 4800 MT/s DDR4 3200 MT/s	LPDDR5 4800 MT/s DDR5 4800 MT/s DDR4 3200 MT/s
Max Graphics Frequency	Up to 1.25 GHz	Up to 1.25 GHz
Processor Graphics	Intel® UHD Graphics	Intel® UHD Graphics
Graphics Execution Units	32	32
Thermal Design Power (TDP)	15 W	7 W

INTEL® PROCESSOR	intel. INSIDE	intel. INSIDE
	Intel® Processor N200	Intel® Processor N100
Max Turbo Frequency	Up to 3.7 GHz	Up to 3.4 GHz
Number of Processor Cores/Threads	4/4	4/4
L3 Cache	6 MB	6 MB
Number of Memory Channels	1	1
Memory Type	LPDDR5 4800 MT/s DDR5 4800 MT/s DDR4 3200 MT/s	LPDDR5 4800 MT/s DDR5 4800 MT/s DDR4 3200 MT/s
Max Graphics Frequency	Up to 750 MHz	Up to 750 MHz
Processor Graphics	Intel® UHD Graphics	Intel® UHD Graphics
Graphics Execution Units	32	24
Thermal Design Power (TDP)	6 W	6 W

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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 Performance Index 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. Functionality of certain applications may be OS-Dependent.

* Not supported on Chrome.

1. Based on the IEEE 802.11ax specification, 160 MHz channels and Wi-Fi 6/6E technology advantages enable significantly higher maximum theoretical PC client speeds vs. standard Wi-Fi 5/80 MHz products. Select SKUs only, functionality varies by OEM design, operating system and routers/APs/Gateways that support Wi-Fi 6E, together with regional spectrum allocation & required regulatory certifications. Check with OEM or retailer for system configuration details. Visit www.intel.com/Performance-wireless for details.
2. As measured by time taken to load Microsoft Word Document in Google Docs while running Google Meet and DOGO News applications (Multi-tasking Productivity (Word) Workload)
3. As measured by CrXPRT 2^A Battery - full rundown score on Intel® Processor N200. All School Day is defined as a student spending 8 hours at school with their notebook working or web browsing or playing video at 1080P resolution or in idle state during that 8-hour duration.
4. As measured by CrossMark^B overall score on Intel® Processor N200 vs Intel Pentium® Silver N6000
5. As measured by CrossMark^B overall score on Intel® Core™ i3-N305 vs Intel® Processor N200
6. As measured by Speedometer 2.1^C score on Intel® Processor N200 vs Intel Pentium® Silver N6000
7. As measured by UL Procyon Office Productivity^D score on Intel® Processor N200 vs Intel Pentium® Silver N6000
8. As measured by 3DMark Wildlife^E unlimited on Intel® Processor N200 vs Intel Pentium® Silver N6000
9. As measured by 3DMark Wildlife^E unlimited on Intel® Core™ i3-N305 vs Intel® Processor N200
10. As measured by Adobe Content Creation Applications via SYSmark 25^F creativity subscore on Intel® Processor N200 vs Intel Pentium® Silver N6000
11. As measured by platform power consumption on an Intel Internal Validation Platform while running Netflix streaming battery rundown test on Intel® Processor N200

Workload and Benchmark Information

- A. CrXPRT 2 is published by Principled Technologies (PT), an open-source community and host of the BenchmarkXPRT* development forum. CrXPRT tests Chromebook Performance using real-world scenarios: Photo Effects, Face Detection (JavaScript), Offline Notes, Stocks Dashboard, DNA Sequence Analysis, and 3D Shapes with WebGL. Each scenario produces individual metrics that roll up to an overall score.
- B. CrossMark is a benchmark from the BAPCo* consortium that is an easy to run native cross-platform benchmark that measures the overall system performance and system responsiveness using models of real-world applications.
- C. Speedometer 2.1 tests a browser's Web app responsiveness by timing simulated user interactions. This benchmark simulates user actions for adding, completing, and removing to-do items using multiple examples in TodoMVC
- D. UL Procyon Office Productivity is a benchmark from UL that uses Microsoft Office applications (word, excel, PowerPoint and outlook) and real and relevant workloads within these applications to measure PC performance for office productivity work
- E. 3DMark is a benchmark from Futuremark* that measures, DX 10 ,DX 11 and DX 12 gaming performance. There are four main test used: "3Dmark*11" for DX 11 graphics, "Fire Strike" for DX 11 graphics, "Night Raid" for DX 12 graphics and "Time Spy" for DX 12 graphics.
- F. SYSmark 25 is a benchmark from BAPCo* consortium that measures the performance of Windows platform. SYSmark 25 tests three usage scenarios: Productivity, Creativity and Responsiveness. SYSmark contains real applications from independent software vendors such as Microsoft and Adobe.