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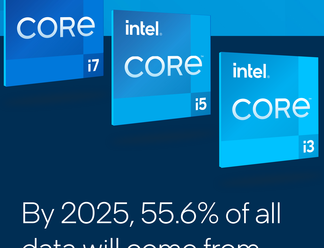
Meet rigorous IoT demands with processors enhanced for IoT

11th Gen Intel® Core™ Processors



By 2025, 55.6% of all data will come from IoT devices[1]

To address the processing needs of this new IoT-enabled future, we've developed the 11th Gen Intel® Core™ Processors.

HIGHLIGHTS

Built on third-generation, 10 nm microarchitecture enhanced specifically for critical IoT applications that demand high-speed processing, computer vision, and low-latency deterministic computing

High-performance, responsive CPU/GPU compute combined with AI/deep learning capabilities in a low-power platform

Raise performance with up to a 23% gain in single-thread performance, up to a 19% gain in multi-core performance and up to a 2.95x graphics performance gain vs. 8th Gen Intel® Core™ processors[2†]

Advanced graphics, media, and display features*: Intel® Iris® Xᵉ graphics with up to 96 execution units that will deliver up to 2.95x the graphics performance of 8th Gen Intel® Core™ processors and dual video decode boxes can process up to 40 simultaneous video streams at 1080p 30 frames/second and output up to four channels of 4K or two channels of 8K video[2]

Put accelerated AI inferencing and computer vision to work with a single architecture: AI and deep learning inference can run on up to 96 graphic execution units (INT8) or run on the CPU with VNNI, which condenses three AVX instructions into one

Real-Time computing*: New IoT-centric hardware and software enable applications that meet real-time computing demands and deliver deterministic performance

† See backup for configuration details. For more complete information about performance and benchmark results, visit www.intel.com/benchmarks.
* Not all features are available on all SKUs.

USE CASES

Industrial sectors: Build mission-critical control systems (PLC, robotics, etc), industrial PCs, and human-machine interfaces

Retail, banking, and hospitality: Drive intelligent, immersive digital signage, interactive kiosks, and automate checkout

Healthcare: Build next-generation medical imaging devices with high-resolution displays and AI-powered diagnostics

Build smart network video recorders with onboard AI inferencing and analytics

To learn more, visit **intel.com/tiger-lake-up3**

1. IDC white paper, sponsored by Seagate, Data Age 2025, April 2017.
2. Source: Intel. Performance claim based on SPEC CPU 2017 metrics estimated by measurements on Intel internal reference platforms completed on August 27, 2020. Graphics claimed based on 3DMark11, V1.0.4 Graphics Score estimated by measurements on Intel internal reference platforms on August 27, 2020.

Testing Configuration:
Processor Intel® Core™ i7 1185G7E PL1=15W TDP, 4C8T Turbo up to 4.4GHz
Graphics: Intel Graphics Gen 12 gfx
Memory: 16GB DDR4-3200
Storage: Intel SSDPEKKW512G8 (512 GB, PCI-E 3.0 x4)
OS: Windows* 10 Pro (x64) Build 19041.31 (2004) (May 2020 Update). Power policy set to AC/Balanced mode for all benchmarks. All benchmarks run in Admin mode & Tamper Protection Disabled / Defender Disabled.
Bios: Intel Corporation TGLSFWI1.R00.3333.A00.2008121204.D.rel$WC.1gl_b2b0_up3_pv_up4_qs_fw_2020_ww32_4_01

Processor: Intel® Core™ i7 – 8665UE 15W PL1=15W TDP, 4C8T Turbo up to 4.4GHz
Graphics: Intel Graphics Gen 9 gfx
Memory: 16GB DDR4-2400
Storage: Intel SSD 545S (512GB)
OS: Windows* 10 Enterprise (x64) Build 18362.175 (1903/ May 2019 Update). Power policy set to AC/Balanced mode for all benchmarks. All benchmarks run in Admin mode & Tamper Protection Disabled / Defender Disabled
Bios: CNLSFWR.R00.X208.B00.1905300319

Notices and Disclaimers

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.
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.
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Not all features are available on all SKUs.

Not all features are supported in every operating system.
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