

# Accelerate edge innovations with more cores, threads, cache, and I/O

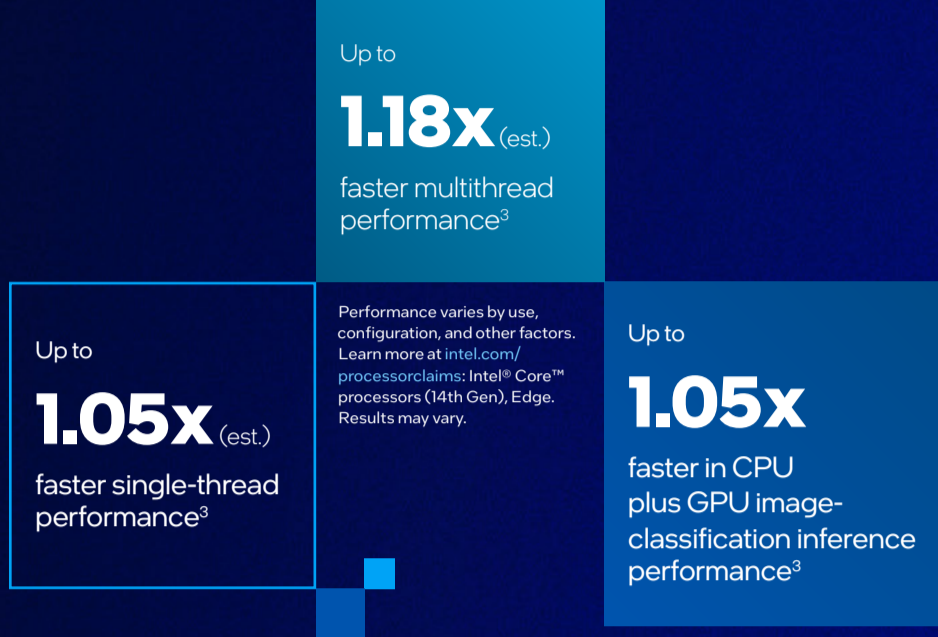


**Intel® Core™ processors (14th Gen) help businesses deploy AI everywhere to drive their success and stay ahead in hypercompetitive markets.**

Power up your edge devices with this LGA-socket CPU that delivers higher performance, up to 24 cores, 32 threads, single-core turbo frequencies<sup>1</sup> up to 5.8 GHz, more cache, and expansive I/O. Performance hybrid architecture,<sup>2</sup> PCIe 5.0 connectivity, and DDR5-5600 memory enable flexibility for high-value use cases.

## Intel® Core™ processors

vs. prior-generation processors



## Support compute-heavy operations in edge devices

### Push the limits of current systems

Increased single P-core turbo frequency up to 5.8 GHz, socket compatible<sup>4</sup> with previous generation for minimal validation, testing, and seamless firmware upgrades

### Intelligent workload acceleration<sup>1</sup>

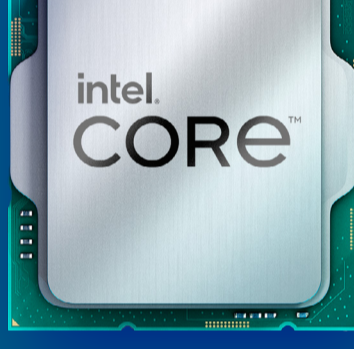
Intel® Thread Director,<sup>6</sup> Intel® Thermal Velocity Boost, Intel® Adaptive Boost, Intel® Turbo Boost Max Technology 3.0

### More opportunities for solution builders

Performance hybrid architecture on all i9, i7, and i5 processors and more Efficient-cores in the i7 processor; long-life availability;<sup>5</sup> Windows 10 IoT Enterprise 2021 LTSC support

### Faster AI inferencing<sup>3</sup>

Integrated Intel® Deep Learning Boost (VNNI) with support for Intel® Distribution of OpenVINO™ toolkit



### Rich media and display

Intel® UHD Graphics 770 driven by Intel® X<sup>e</sup> architecture<sup>7</sup> and up to 4x 4K60 HDR displays with Genlock and Pipelock synchronization

### Powerful wired or wireless connections

Optional support for discrete Thunderbolt™ 4 technology, Wi-Fi 7, and Wi-Fi 6E

### Flexible I/O expansion

Up to 16x lanes of PCIe 5.0 and 4x lanes of PCIe 4.0 on the CPU, up to 28x lanes of PCIe 4.0 and 3.0 on the PCH

## Build what customers want



### Retail, banking, education, hospitality

Deploy flexible solutions with a top-to-bottom SKU stack and powerful compute headroom.

Point of sale, kiosk, video walls, digital signage, analytics, interactive flat panel displays (IFPDs)

### Healthcare

Deliver exceptional performance and responsiveness for data-intensive use cases at the medical edge.

Ultrasound imaging, medical carts, endoscopy, clinical devices



### Industrial

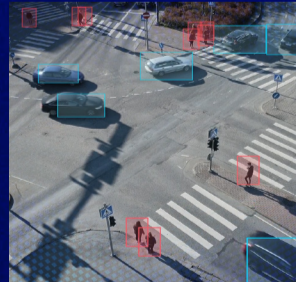
Support AI automation and robotics as well as rich displays for HMIs and greater control on the factory floor.

AI-based industrial process control (AIPC), industrial PCs, edge servers, human-machine interfaces (HMIs)

### Cities and critical infrastructure

Process more video streams while delivering integrated graphics to support edge inference.

Network video recorder (NVR), AI box, roadside units (RSUs)



Build powerful multitasking platforms for AI solutions at the edge, with more cores, threads, cache, and I/O.

**Learn more about Intel® Core™ processors (14th Gen) at [intel.com/core14thgen-edge](https://intel.com/core14thgen-edge)**



#### Notices and disclaimers

- Intel® Hyper-Threading Technology, Intel® Turbo Boost Max Technology 3.0, and Intel® Thermal Velocity Boost are only available on Performance-cores.
- 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 or E-cores, and may have the same cache size. See [ark.intel.com](https://ark.intel.com) for SKU details, including cache size and core frequency.
- Performance varies by use, configuration, and other factors. Learn more at [intel.com/processorclaims](https://intel.com/processorclaims): Intel® Core™ processors (14th Gen), Edge. Results may vary.
- Socket compatible with 12th and 13th Gen Intel® Core™ processors for edge.
- Intel does not commit or guarantee product availability or software support by way of road map guidance. Intel reserves the right to change road maps or discontinue products, software, and software support services through standard EOL/PDN processes. Contact your Intel account rep for additional information.
- Support for Intel® Thread Director is expected in Windows 11 IoT Enterprise LTSC.
- Available on select SKUs.

Availability of accelerators varies depending on SKU. Visit the Intel® Product Specifications page for additional product details. Performance varies by use, configuration, and other factors. Learn more at [intel.com/PerformanceIndex](https://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.

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