

Advanced AI drives faster value for the IoT edge

4th Gen Intel® Xeon® Scalable processors move your business forward.

Accelerate your most advanced workloads for video analytics, object detection, and machine learning. New Intel® Advanced Matrix Extensions (Intel® AMX) significantly boosts AI, and built-in security helps you innovate with confidence.



4th Gen Intel Xeon Scalable processors with Intel Advanced Matrix Extensions (Intel AMX)

1.33x

higher performance¹

3.01x

higher AI inference performance with Intel® AMX for image classification²

4.25x

higher AI inference performance with Intel® AMX for object detection³

vs. 3rd Gen Intel® Xeon® Scalable processors

For workloads and configurations, visit intel.com/processorclaims: 4th Gen Intel Xeon Scalable processors. Results may vary.

Explore advanced edge capabilities



4th Gen Intel Xeon Scalable processors



Intel® C740 series chipset

One- or two-socket scalability

Up to **52 cores⁴**

New extensions for AI acceleration

Intel® Deep Learning Boost with Intel AMX and support for the Intel® Distribution of **OpenVINO™** toolkit

Up to 8x DDR5 channels, 16 DIMMs per socket

4800 MT/s (IDPC) or **4400 MT/s** (1 and 2DPC)

Next-gen memory support

Validated for **Intel® Optane™ Persistent Memory 300 Series**

Fast interconnects

Compute Express Link (CXL) 1.1 between CPUs and external accelerators

Robust platform hardening

Intel® Software Guard Extensions, Intel® Total Memory Encryption, and Intel® Platform Firmware Resilience

Granular CPU control and manageability

Intel® Resource Director Technology (Intel® RDT) and **Intel® Speed Select Technology** (Intel® SST)

PCIe 5.0 ready with up to 100x PCIe lanes

Up to **80 lanes PCIe 5.0** on the CPU
Up to **20 lanes PCIe 3.0** on the PCH

Cross-architecture support

Intel® oneAPI Toolkit with write-once, deploy-anywhere flexibility

Long-life availability⁵ and high-reliability, long-use SKUs⁶

More value from platform validation cycles, more postdeployment longevity

More performance and fast AI across key use cases



Video

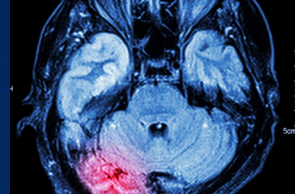
Eliminate bottlenecks with more AI accelerators; move data fast for analytics.

Video/data analytics servers, NVR storage servers, management services servers

Healthcare

Help improve medical image processing; accelerate matrix-heavy apps in research.

Nuclear medicine, MRI/CT, AI appliances and diagnostics, drug research



Industrial

Converge infrastructure and deploy more automation and machine vision.

Analytics/control systems, factory automation, test controllers

Public sector

Create high-quality images and move data fast over hardened platforms.

Reconnaissance, command and control systems, communication networks



Retail, banking, hospitality, education

Support more virtual desktops and single-socket solutions at the edge.

Edge servers for transactions, analytics, or thin client

Get performance, connectivity, and security for video analytics, industrial servers, and AI/deep learning at the edge.

Learn more about 4th Gen Intel Xeon Scalable processors at intel.com/4thgenxeon-iot.

Notices and disclaimers

1. See [N23] at intel.com/processorclaims: 4th Gen Intel Xeon Scalable processors. Results may vary.
 2. See [N21] at intel.com/processorclaims: 4th Gen Intel Xeon Scalable processors. Results may vary.
 3. See [N22] at intel.com/processorclaims: 4th Gen Intel Xeon Scalable processors. Results may vary.
 4. The 4th Gen Intel® Xeon® Scalable platform offers a maximum of 60 cores/sockets; a maximum of 52 cores/sockets are offered on the IOTG road map.
 5. 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.
 6. SKUs with long product use life (up to 10 years, up to 100 percent active, no turbo) – Industrial-commercial temperature use condition.
 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.
 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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