

Intel® Core™ Ultra 5 Processor 245



Intel® Core™ Ultra 5 Processor 245

24M Cache, up to 5.10 GHz

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Specifications

Ordering & Compliance

Compatible Products

Essentials

Essentials

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CPU Specifications

Product Collection

[Intel® Core™ Ultra Processors \(Series 2\)](#)

Supplemental Information

Code Name

[Products formerly Arrow Lake](#)

Memory Specifications

Vertical Segment

Desktop

GPU Specifications

Processor Number [?](#)

245

NPU Specifications

Overall Peak TOPS (Int8) [?](#)

29

Expansion Options

Recommended Customer Price [?](#)

\$270.00

CPU Specifications

Total Cores [?](#)

14

of Performance-cores

6

of Efficient-cores

8

Total Threads [?](#)

14

Max Turbo Frequency [?](#)

5.1 GHz

Performance-core Max Turbo Frequency [?](#)

5.1 GHz

Efficient-core Max Turbo Frequency [?](#)

4.5 GHz

Performance-core Base Frequency [?](#)

3.5 GHz

Efficient-core Base Frequency [?](#)

3 GHz

Cache [?](#)

24 MB Intel® Smart Cache

Total L2 Cache

26 MB

Processor Base Power [?](#)

65 W

Maximum Turbo Power [?](#)

121 W

Intel® Deep Learning Boost (Intel® DL Boost) on CPU [?](#)

Yes

AI Software Frameworks Supported by CPU

OpenVINO™, WindowsML, DirectML, ONNX RT, WebNN

CPU Lithography [?](#)

TSMC N3B

Supplemental Information

Marketing Status

Launched

Launch Date [?](#)

Q1'25

Embedded Options Available [?](#)

Yes

Use Conditions [?](#)

PC/Client/Tablet, Workstation

Datasheet

[View now](#)

Memory Specifications

Max Memory Size (dependent on memory type) [?](#)

192 GB

Memory Types [?](#)

Up to DDR5 6400 MT/s

Max # of Memory Channels [?](#)

2

ECC Memory Supported ¹ [?](#)

Yes

GPU Specifications

GPU Name ¹ [?](#)

Intel® Graphics

Graphics Base Frequency [?](#)

300 MHz

Graphics Max Dynamic Frequency [?](#)

1.9 GHz

GPU Peak TOPS (Int8) [?](#)

8

Graphics Output [?](#)

DP2.1 UHBR20, HDMI2.1 FRL 12GHz, eDP1.4b

X²-cores

4

Max Resolution (HDMI) ¹ [?](#)

4K @ 60Hz (HDMI 2.1 TMDS) 8K @ 60Hz (HDMI2.1 FRL)

Max Resolution (DP) [‡] [?](#)

8K @ 60Hz

Max Resolution (eDP - Integrated Flat Panel) [‡] [?](#)

4K @ 60Hz

DirectX[®] Support [?](#)

12

OpenGL[®] Support [?](#)

4.5

OpenCL[®] Support [?](#)

3

Intel® Quick Sync Video [?](#)

Yes

of Displays Supported ¹

4

Device ID

0x7D67

Intel® Deep Learning Boost (Intel® DL Boost) on GPU [?](#)

Yes

NPU Specifications

NPU Name ¹

Intel® AI Boost

NPU Peak TOPS (Int8) [?](#)

13

Sparsity Support

Yes

Windows Studio Effects Support

Yes

AI Software Frameworks Supported by NPU

OpenVINO™, WindowsML, DirectML, ONNX RT, WebNN

Expansion Options

Direct Media Interface (DMI) Revision

4

Max # of DMI Lanes

8

Intel® Thunderbolt™ 4 [?](#)

Yes

Scalability

1S Only

PCI Express Revision [?](#)

5.0 and 4.0

PCI Express Configurations ¹ [?](#)

Up to 1x16+2x4, 2x8+2x4, 1x8+4x4

Max # of PCI Express Lanes [?](#)

24

Package Specifications

Sockets Supported [?](#)

FCLGA1851

Thermal Solution Specification [?](#)

PCG 2022C

Max Operating Temperature [?](#)

105 °C

Advanced Technologies

Intel® Volume Management Device (VMD) [?](#)

Yes

Intel® Gaussian & Neural Accelerator [?](#)

3.5

Intel® Thread Director [?](#)

Yes

Intel® Speed Shift Technology [?](#)

Yes

Intel® Turbo Boost Technology ¹ [?](#)

2.0

Intel® 64 ¹ [?](#)

Yes

Instruction Set [?](#)

64-bit

Instruction Set Extensions [?](#)

Intel® SSE4.1, Intel® SSE4.2, Intel® AVX2

Idle States [?](#)

Yes

Enhanced Intel SpeedStep® Technology [?](#)

Yes

Thermal Monitoring Technologies [?](#)

Yes

Security & Reliability

Intel vPro® Eligibility ¹ [?](#)

Intel vPro® Enterprise, Intel vPro® Platform

Intel® Hardware Shield Eligibility ¹ [?](#)

Yes

Intel® Threat Detection Technology (TDT)

Yes

Intel® Active Management Technology (AMT) ¹ [?](#)

Yes

Intel® Standard Manageability (ISM) ¹ [?](#)

Yes

Intel® Remote Platform Erase (RPE) ¹

Yes

Intel® One-Click Recovery ¹

Yes

Intel® Control-Flow Enforcement Technology [?](#)

Yes

Intel® Total Memory Encryption - Multi Key

Yes

Intel® AES New Instructions [?](#)

Yes

Secure Key [?](#)

Yes

Intel® Trusted Execution Technology ¹ [?](#)

Yes

Execute Disable Bit ¹ [?](#)

Yes

Intel® OS Guard

Yes

Intel® Boot Guard [?](#)

Yes

Mode-based Execute Control (MBEC) [?](#)

Yes

Intel® Stable IT Platform Program (SIPP) [?](#)

Yes

Intel® Virtualization Technology with Redirect Protection (VT-rp) ¹

Yes

Intel® Virtualization Technology (VT-x) ¹ [?](#)

Yes

Security & Reliability

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Refer to Datasheet for formal definitions of product properties and features.

[‡] 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.

Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See <http://www.intel.com/content/www/us/en/processors/processor-numbers.html> for details.

Recommended Customer Price (RCP) is pricing guidance only for Intel products. Prices are for direct Intel customers, usually represent 1,000-unit purchase quantities, and are subject to change without notice. Prices may vary for other package types and shipment quantities. In bulk, price represents individual unit. Listing of RCP does not constitute a formal pricing offer from Intel.

¹ "Announced" SKUs are not yet available. Please refer to the Launch Date for market availability.

Intel® Arc™ graphics only available on select V-Series Intel® Core™ Ultra processor-powered systems with qualifying system thermal design or H-series Intel® Core™ Ultra processor-powered systems with at least 16GB of system memory in a dual-channel configuration. OEM enablement required. Other Intel® Core™ Ultra processor-powered system configurations feature Intel® Graphics. Check with OEM or retailer for system configuration details.

Intel® Iris® Xe Graphics only: to use the Intel® Iris® Xe brand, the system must be populated with 128-bit (dual channel) memory. Otherwise, use the Intel® UHD brand.

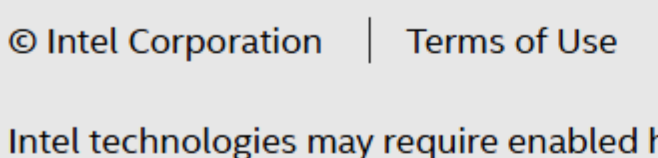
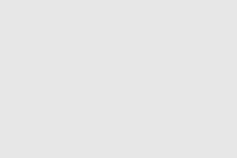
Max Turbo Frequency refers to the maximum single-core processor frequency that can be achieved with Intel® Turbo Boost Technology. See www.intel.com/technology/turboboost/ for more information and applicability of this technology.

Processors that support 64-bit computing on Intel® architecture require an Intel 64 architecture-enabled BIOS.

Some products can support AES New Instructions with a Processor Configuration update, in particular, i7-2630QM/i7-2635QM, i7-2670QM/i7-2675QM, i5-2430M/i5-2435M, i5-2410M/i5-2415M. Please contact OEM for the BIOS that includes the latest Processor configuration update.

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