Product Brief

Intel® Core™ Ultra Series 3 Processors

Intel® Core™ Ultra Series 3 Processors deliver premium performance, leading AI experiences, game-changing graphics, and the ability to work everywhere. This new generation of processors is engineered for mobility without compromise, featuring the latest P-core, E-core, and LP E-core architecture, a built-in NPU that enables Copilot+, and available with a built-in Intel® Arc™ GPU.[1]

This series of processors serves a wide range of system types and user needs, built on a foundation of great battery life, power-efficient performance, and premium AI capabilities.

Intelligent Performance with Next-gen AI and Premium Graphics

Premium Performance

New next-gen Performance-cores, Efficient-cores, and Low Power Efficient-cores enables performance that can last throughout the day, packing Intel's latest core architecture into a single processor that delivers breakthrough power and efficiency.

New Core Architecture

Next-gen
P-cores
Driving Snappy and Responsive Experiences

Next-gen
E-cores
Driving Multi-thread Performance & Parallelism

Next-gen
LP E-cores
Driving Efficient Performance for Everyday Tasks

Engineered to Outlast

With the performance efficiency of Intel's latest mobile core architecture, batteries can work as long as your customers do, helping them work, play, and multitask through their most demanding workloads.

For numbered references, see Notices & Disclaimers section.

Performance For Everything Your Customers Do

Intel® Core™ Ultra processors feature up to 16 cores, optimized for real-world performance and ready to power the latest apps.

Premium Performance

Up to	Up to	Up to
4	**8**	**4**
Next-gen P-cores	**Next-gen E-cores**	**Next-gen LP E-cores**

Exceptional On-the-go Experience

- Support for more apps, more games, and more freedom for your customers to do what they want, wherever they want to.
- Accelerated video & creative workflows.
- Performance for work, play, and everything in between.

Intel® Core™ Ultra Processors with Built-in Intel® Arc™ GPU

Game-changing Graphics

Providing groundbreaking graphics performance for ultra-thin and light laptops.

NEW Built-in Intel® Arc™ GPU[1] delivers power-efficient visuals with Xe3 Architecture.

- **Up to 12 Xe cores**
- **Up to 120 TOPS**

Intel® XeSS 3 (Xe Super Sampling 3) for AI upscaling and ultra smooth gameplay with XeSS-SR (XeSS Super Resolution) and XeSS-MFG (XeSS Multi-Frame Generation). Plus **XeLL** (Xe Low Latency) for faster responsiveness

FEATURED Intel® XMX (Xe Matrix eXtensions) engines with XMX engines purpose-built for AI experiences[2].

Longer play sessions with Endurance Gaming.

Intel® Core™ Ultra Series 3 Processors

AI Excellence

NEW NPU Architecture

(Neural Processing Unit)

Introducing
NPU 5 Architecture

Up to
50 TOPS
Across the Stack

Intel® Core™ Ultra Processors

The Foundation of the AI PC

GPU
High Throughput
Ideal for AI-accelerated digital content creation.

+

NPU
Low Power
Ideal for sustained AI workloads and AI offload for battery life.

+

CPU
Fast Response
Ideal for low-latency AI workloads.

Leadership AI Performance[3]:
NPU 5 Architectures with up to 50 TOPS of acceleration

Intel® XMX (Xe Matrix Extensions) & XMX engines:
Each Xe core contains integrated XMX engines[2]

Comprehensive AI:

- Advancing PC & edge ecosystems
- Igniting the AI software ecosystem
- 350+ ISVs
- 500+ AI-accelerated features
- 900+ AI models supported

For numbered references, see Notices & Disclaimers section.

Premium Platform Upgrades

Thunderbolt™ Technologies

Thunderbolt™ 5 Technology delivers 80 Gbps bidirectional bandwidth and 120 Gbps of transmit bandwidth with Bandwidth Boost mode. Thunderbolt™ 5 Technology delivers 2x the bandwidth for data transfer vs Thunderbolt™ 4 Technology with fast device charging up to 240W[4] and dual 8K monitor support[5] to enhance all your PC experiences.

Thunderbolt™ 4 ports and cables support the trifecta of power charging, bidirectional data transfer, and video display in a single interface.

Thunderbolt™ Share

Offers users an easy, fast, and efficient way to do more with two PCs by sharing screens, keyboard, mouse, storage, and files with the speed of Thunderbolt™ technology.

Intel® Wi-Fi 7 R2 (5 Gig)[6] and Dual Bluetooth® Core 6 Support

Enjoy immersive untethered streaming, collaboration, and gaming experiences with up to 4.8X faster speeds and 60% lower latencies vs. Wi-Fi 6[7] and high fidelity, multi-stream Bluetooth® LE Audio.

Intel® Connectivity Performance Suite[8]

Acts as your built-in IT expert by continuously optimizing your Wi-Fi connection and prioritizing your important applications to help enable improved responsiveness, better resolution, and faster speeds.

Intel® Evo™ Platform

Engineered to do it all.

Only available on specific SKUs.

Intel® Evo™ laptops powered by Intel® Core™ Ultra processors deliver a no-compromise, premium mobile experience by verifying that each laptop design meets the premium standards you desire. Intel spent thousands of hours studying the way people use their laptops in real life and then collaborated with leading PC makers to co-engineer, optimize, and verify these laptop designs. To obtain the Intel® Evo™ brand seal of approval, laptop designs must pass rigorous testing around performance, battery life, connectivity, audio & visual quality, size, weight, and more. And to ensure an evolving laptop experience, innovative features are continuously built in and introduced for the first time through Intel® Evo™ laptops. The result is a sleek and stylish premium laptop that delivers cutting-edge innovation and the ideal combination of world-class performance, outstanding graphics, and ultimate mobility with features like fast-charging & long-lasting battery, consistent responsiveness on battery, and instant wake.

Features at a Glance

Feature	Benefit
Built-in Intel® Arc™ GPU[1]	The Intel® Arc™ graphics brand represents Intel's premium graphics brand across gaming, content creation, AI, and workstation.
Intel® XeSS 3 (Xe Super Sampling)	Experience smoother and faster gameplay through a combination of AI-driven technologies wrapped into one package: XeSS Super Resolution to increase performance with XeSS Multi Frame Generaion.
Intel® XeSS-SR	XeSS-SR delivers innovative, framerate-boosting technology, which is supported by Intel® Arc™ GPUs.
Intel® XeLL (Xe Low Latency)	When incorporated into an application, XeLL receives per-frame timing information that allows it to calculate the CPU delay that an application should apply before work on the next frame begins.
Intel® XeSS-MFG	XeSS-MFG enables AI-based frame interpolation technology supported by Intel® Arc™ GPUs.
Intel® XMX AI Engines (Xe Matrix Extensions)[2]	AI engines integrated into the Xe-cores of Intel® Arc™ GPUs. They enable Intel® Arc™ graphics to accelerate today's increasingly important AI workloads.
Endurance Gaming Mode	Extends playtime on battery by balancing frame rate and power consumption.
Intel® Intelligent Display Technology	Intel® Intelligent Display Technology uses AI-driven awareness to extend battery life by dynamically optimizing display power. It senses user engagement and content in real time—dimming, adjusting refresh rates, and instantly responding when you return, for smarter efficiency without compromise.
IPU 7.5[9]	For smarter , AI-driven imagine to the PC - support for next-gen high-resolution camera sensors; delivering cleaner low-light video collaboration and richer HDR.
Thunderbolt™ Technology	Thunderbolt™ technology offers a best-in-class set of capabilities to deliver the simplest, most reliable, and fastest cable solution available for connecting to power and your favorite accessories.
Thunderbolt™ Share	Offers users an easy, fast, and efficient way to do more with two PCs by sharing screens, keyboard, mouse, storage, and files with the speed of Thunderbolt™ technology.
Intel® Wi-Fi 7[6]	Experience a quantum leap in wireless performance from 8K streaming video to immersive VR experiences, users around the world can enjoy all-new levels of increased speed and reduced latency compared to previous wireless generation products.
Bluetooth® Technology	Bluetooth® short-range wireless technology enables two devices to connect directly without requiring supporting network infrastructure such as a wireless router or access point.

Intel® Core™ Ultra Series 3 Processors SKUs

Processor Brand & Number	Intel® Core™ Ultra X9 Processors 388H	Intel® Core™ Ultra 9 Processors 386H	Intel® Core™ Ultra X7 Processors 368H	Intel® Core™ Ultra 7 Processors 366H	Intel® Core™ Ultra 7 Processors 365	Intel® Core™ Ultra X7 Processors 358H	Intel® Core™ Ultra 7 Processors 356H	Intel® Core™ Ultra 7 Processor 355
Total Cores & Threads	16	16	16	16	8	16	16	8
P-Core Max Core Turbo Freq (GHz)[10]	5.1	4.9	5.0	4.8	4.8	4.8	4.7	4.7
Intel® Smart Cache LLC (MB)	18	18	18	18	12	18	18	12
Integrated NPU PTOPS[2,9]	50	50	50	50	49	50	50	49
Graphics Brand[1]	Intel® Arc™ B390 GPU / Intel® Arc™ Pro B390 GPU	Intel® Graphics	Intel® Arc™ B390 GPU / Intel® Arc™ Pro B390 GPU	Intel® Graphics	Intel® Graphics	Intel® Arc™ Pro B390 GPU	Intel® Graphics	Intel® Graphics
Total Xᵉ Cores	12	4	12	4	4	12	4	4
Intel vPro®[12] Eligible	Yes					No		
Intel® SIPP	Yes					No		
Total Platform PCIe Lanes, CPU PCIe Config	12 (8 G4, 4 G5)	20 (8 G4, 12 G5)	12 (8 G4, 4 G5)	20 (8 G4, 12 G5)	12 (8 G4, 4 G5)	12 (8 G4, 4 G5)	20 (8 G4, 12 G5)	12 (8 G4, 4 G5)
Thunderbolt™ Technology	4 Integrated Thunderbolt™ 4 Ports, Discrete Thunderbolt™ 5 Technology Support				4 Integrated Thunderbolt™ 4 Ports	4 Integrated Thunderbolt™ 4 Ports, Discrete Thunderbolt™ 5 Technology Support		4 Integrated Thunderbolt™ 4 Ports
Wi-Fi, Bluetooth®	Integrated Wi-Fi 7 R2 / Dual Bluetooth® Core 6.0							
Maximum Memory Speed (MT/s)[13]	LP5/X 9600	LP5/X 8533 DDR5 7200	LP5/X 9600	LP5/X 8533 DDR5 7200	LP5/X 7467 DDR5 6400	LP5/X 9600	LP5/X 8533 DDR5 7200	LP5/X 6800 DDR5 6400
Maximum Memory Capacity (GB)[13]	96 (LP5/X)	96 (LP5/X) 128 (DDR5)	96 (LP5/X)	96 (LP5/X) 128 (DDR5)		96 (LP5/X)	96 (LP5/X) 128 (DDR5)	
Processor Base Power (W)	25							
Maximum Turbo Power (W)[14]	65, 80	65, 80	65, 80	65, 80	55	65, 80	65, 80	55

Intel® processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families.
All processors are lead-free (per EU RoHS directive July 2006) and halogen-free (residual amounts of halogens are below the November 2007 proposed IPC/JEDEC J-STD-709 standards).
All processors support Intel® Virtualization Technology (Intel® VT-x, VT-d), Intel® Trusted Execution Technology (Intel® TXT), and the Secured-core PC specification.
For numbered references, see Notices & Disclaimers section.

Intel® Core™ Ultra Series 3 Processors SKUs

Processor Brand & Number	Intel® Core™ Ultra 5 Processors 338H	Intel® Core™ Ultra 5 Processors 336H	Intel® Core™ Ultra 5 Processors 335	Intel® Core™ Ultra 5 Processors 325	Intel® Core™ Ultra 5 Processors 332	Intel® Core™ Ultra 5 Processors 322
Total Cores & Threads	12	12	8	8	8	8
P-Core Max Core Turbo Freq (GHz)[10]	4.7	4.6	4.6	4.5	4.4	4.4
Intel® Smart Cache LLC (MB)	18	18	12	12	12	12
Integrated NPU PTOPS[2,9]	47	47	47	47	46	46
Intel® Thermal Velocity Boost Frequency (GHz)[2]	Intel® Arc™ B370 GPU / Intel® Arc™ Pro B370 GPU	Intel® Graphics				
Total Xe Cores	10	4	4	4	2	2
Intel vPro®[12] Eligible	Yes			No	Yes	No
Intel® SIPP	Yes			No	Yes	No
Total Platform PCIe Lanes, CPU PCIe Config	12 (8 G4, 4 G5)	20 (8 G4, 12 G5)	12 (8 G4, 4 G5)			
Thunderbolt™ Technology	4 Integrated Thunderbolt™ 4 Ports, Discrete Thunderbolt™ 5 Technology Support		4 Integrated Thunderbolt™ 4 Ports			
Wi-Fi, Bluetooth®	Integrated Wi-Fi 7 R2 Dual Bluetooth® Core 6.0					
Maximum Memory Speed (MT/s)[13]	LP5/X 8533	LP5/X 8533 DDR5 7200	LP5/X 7467 DDR5 6400			
Maximum Memory Capacity (GB)[13]	96 (LP5/X)	96 (LP5/X) 128 (DDR5)				
Processor Base Power (W)	25					
Maximum Turbo Power (W)[14]	65, 80	65, 80	55	55	55	55

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Intel® Core™ Ultra Series 3 Processor Overview

NEW FEATURES

- Xᵉ Media Engine[2]
- Xᵉ3 Architecture
- Intel® Wi-Fi 7 R2[6] Dual Bluetooth® Core 6.0
- IPU 7.5
- Audio & Sensing

CPU:
Up to
16 Cores*

GPU:
Up to
12 Xᵉ3 cores*

- Up to LPDDR5X 9600[13]* Up to DDR5 7200[13]
- Up to 20 PCIe Lanes*
- **Up to 50 TOPS** NPU
- Intel® Partner Security Engine
- Intel® Total Storage Encryption

*Numbers can vary for specific SKUs.
For numbered references, see Notices & Disclaimers section.

Notices & Disclaimers

1. **Intel® Arc™ Brand:** Built-in Intel® Arc™ GPU only available on select Intel® Core™ Ultra Series 3 processor-powered systems that meet minimum Xe core requirement. Other system configurations feature Intel® Graphics. For more information visit intel.com/arc. Results may vary.
2. **Xe Matrix eXtensions:** Intel® Xe Matrix eXtensions (Intel® XMX) are specialized AI engines that operate on systolic arrays, resulting in a high value of calculated PTOPS based on assumptions about certain operating conditions that directly benefit in accelerating AI workloads.
3. **Leadership AI Performance:** As of Dec. 2025, based on strong performance and unmatched software options and robust AI features optimized for Intel hardware. AI features may require additional purchase, subscription or enablement, or may have specific configuration or compatibility requirements. Details at www.intel.com/PerformanceIndex.
4. **Thunderbolt™:** Laptop charging: Thunderbolt™ 4 technology for thin and light notebooks that require up to 100W to charge. Thunderbolt™ 5 technology for laptops that require up to 140W to charge. 140W–240W is available on some devices.
5. **Thunderbolt™:** With support for 3:1 display stream compression.
6. **Intel® Wi-Fi 7:** Wi-Fi 7 is subject to regional availability, and operation requires the use of Intel® Wi-Fi 7 (5 Gig) products in conjunction with operating systems and routers/APs/Gateways that support Wi-Fi 7. Learn more at https://www.intel.com/performance-wireless.
7. **Intel® Wi-Fi:** Intel engineering simulations of congested network environments indicate major latency reduction is possible with new Wi-Fi 7 Multi-Link Operation capabilities. While Wi-Fi 7 is backwards compatible with previous generations, new Wi-Fi 7 features require PCs configured with Intel Wi-Fi 7 solutions, PC OEM enabling, operating system support, and use with appropriate Wi-Fi 7 routers/APs/gateways. 6 GHz Wi-Fi 7 may not be available in all regions. Performance varies by use, configuration and other factors. For details on performance claims, learn more at www.Intel.com/performance-wireless.
8. **Connection Software:** Connection optimization software is available on select platforms that require Intel Connectivity Performance Suite (ICPS). For more information, visit https://www.intel.com/content/www/us/en/products/docs/wireless/connectivity-performance-suite.html
9. **IPU 7.5:** Intel IPU 7.5 is available on Intel® Core™ Ultra Series 3 SKUs, supporting up to 3 cameras, up to 16MP. OEM enablement required. Check with OEM for IPU spec and supported sensors.
10. **CPU Frequency:** The frequency of cores and core types varies by workload, power consumption, and other factors. Visit www.intel.com/technology/turboboost for more information.
11. **PTOPS:** Neural Processing Unit (NPU) and GPU-based Peak Tera Operations Per Second (PTOPS) is a calculated value based on several assumptions about operating conditions, including but not limited to maximum frequency, data type, and other design and workload parameters.
12. **Intel vPro®:** Intel vPro® support requires Corporate ME Firmware, not supported with Consumer ME Firmware. Please refer to Intel vPro® brand requirements for Intel® Core™ Ultra Series 3 processors.
13. **Memory:** Maximum memory speeds are associated with board type and DIMM configurations, which may also affect maximum memory capacity. For configuration details, refer to the Intel® Core™ Ultra Series 3 Processor External Design Specification (EDS, Doc ID 815002 and Intel® Core™ Ultra Series 3 Processor Enabling Document (Doc ID 847650).
14. **Power:** System designs using Processor Base Power (PBP) of 25W and Maximum Turbo Power (MTP) of 64W are supported. System designs using PBP of 45W and MTP of 80W are supported.

AI features may require software purchase, subscription or enablement by a software or platform provider, or may have specific configuration or compatibility requirements. Data latency, cost, and privacy advantages refer to non-cloud-based AI apps. Learn more at intel.com/AIPC.

All Intel Evo designs feature high performing Intel® Core™ CPUs, consistent system responsiveness, premium audio & visual components, broad ecosystem compatibility, sleek form factor innovations, optional touch screen and connectivity solutions. Intel's comprehensive laptop innovation program Project Athena ensures all designs with the Intel Evo brand have been tested, measured and verified against a premium specification and key experience indicators. Individual system results may vary. See www.intel.com/performance-evo for details.

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 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.