

Quick Reference Guide



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

NEW Built-in Intel® Arc™ GPU²
with up to 12 Xe Cores

NEW NPU with up to 50 TOPS¹

ENHANCED P-Cores, E-Cores, and
LP E-Cores with up to 16 Cores

INDUSTRY FIRST LPDDR5X Support
with up to 9600MT/s⁴

NEW Xe Media and Display Engine



FEATURED Up to 4 PCIe Gen5 Lanes
and up to 8 PCIe Gen4 Lanes

NEW Total Storage Encryption

FEATURED Thunderbolt™ 5 and
Thunderbolt™ 4 Technology Support

FEATURED Integrated Intel® Wi-Fi 7 (5Gig) R2⁸

FEATURED Dual Bluetooth® Core 6.0 Support

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Intel® Core™ Ultra Series 3 Processors

FEATURED Intel® Graphics²
with up to 4 X^e Cores

NEW NPU with up to 50 TOPS¹

ENHANCED P-Cores, E-Cores*, and
LP E-Cores with up to 16 Cores

NEW LPCAMM2 Memory Support
with up to 9600MT/s⁴

FEATURED DDR5 Support
with up to 7200MT/s⁴

NEW X^e Media and Display Engine



FEATURED Up to 12 PCIe Gen5 Lanes
and up to 8 PCIe Gen4 Lanes*

NEW Total Storage Encryption

FEATURED Thunderbolt™ 5 and
Thunderbolt™ 4 Technology Support

FEATURED Integrated Intel® Wi-Fi 7 (5Gig) R2⁸

FEATURED Dual Bluetooth® Core 6.0 Support

*Numbers can vary for specific SKUs.
For numbered references, see [notices and disclaimers](#) section.

Intel® Core™ Ultra Series 3 Processors SKUs

 Processor Brand & Number	CPU			Integrated NPU TOPS ^{1,3}	Integrated GPU			Intel® Platform Eligibility		I/O & Memory					Power			
	Total Cores & Threads	P-core Max Turbo Freq (GHz) ⁵	Intel® Smart Cache LLC (MB)		Graphics Brand ²	Total X ^e Cores	Max Freq (GHz) / TOPS ^{1,3}	Intel vPro ⁶ Eligible	Intel® SIPP	Total Platform PCIe Lanes, CPU PCIe Config	Thunderbolt™ Technology	Wi-Fi, Bluetooth [®]	Maximum Memory Speed (MT/s) ⁴	Maximum Memory Capacity (GB) ⁴	Processor Base Power (W)	Maximum Turbo Power (W) ⁷		
Intel® Core™ Ultra X9 Processors 388H	16	5.1	18	50	Intel® Arc™ B390 GPU	12	2.5 / 122	Yes	Yes	12 (8 G4, 4 G5)	4 Integrated Thunderbolt™ 4 Ports, Discrete Thunderbolt™ 5 Technology Support	Integrated Wi-Fi 7 R2, Dual Bluetooth® Core 6.0	LP5/X 9600	96 (LP5/X)	25	65, 80		
					Intel® Arc™ Pro B390 GPU													
Intel® Core™ Ultra 9 Processors 386H	16	4.9	18	50	Intel® Graphics	4	2.5 / 40						20 (8 G4, 12 G5)	LP5/X 8533 DDR5 7200			96 (LP5/X) 128 (DDR5)	65, 80
Intel® Core™ Ultra X7 Processors 368H	16	5.0	18	50	Intel® Arc™ B390 GPU	12	2.5 / 122						20 (8 G4, 12 G5)	LP5/X 9600			96 (LP5/X)	65, 80
					Intel® Arc™ Pro B390 GPU													
Intel® Core™ Ultra 7 Processors 366H	16	4.8	18	50	Intel® Graphics	4	2.5 / 40						20 (8 G4, 12 G5)	LP5/X 8533 DDR5 7200			96 (LP5/X) 128 (DDR5)	65, 80
Intel® Core™ Ultra 7 Processors 365	8	4.8	12	49	Intel® Graphics	4	2.5 / 40						12 (8 G4, 4 G5)	4 Integrated Thunderbolt™ 4 Ports				
Intel® Core™ Ultra X7 Processors 358H	16	4.8	18	50	Intel® Arc™ B390 GPU	12	2.5 / 122						12 (8 G4, 4 G5)	4 Integrated Thunderbolt™ 4 Ports, Discrete Thunderbolt™ 5 Technology Support			LP5/X 9600	96 (LP5/X)
Intel® Core™ Ultra 7 Processors 356H	16	4.7	18	50	Intel® Graphics	4	2.45 / 40	20 (8 G4, 12 G5)	LP5/X 8533 DDR5 7200	96 (LP5/X) 128 (DDR5)	65, 80							
Intel® Core™ Ultra 7 Processors 355	8	4.7	12	49	Intel® Graphics	4	2.5 / 40	12 (8 G4, 4 G5)	4 Integrated Thunderbolt™ 4 Ports			LP5/X 6800 DDR5 6400	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 and disclaimers](#) section.

Intel® Core™ Ultra Series 3 Processors SKUs

 Processor Brand & Number	CPU			Integrated NPU TOPS ^{1,3}	Integrated GPU			Intel® Platform Eligibility		I/O & Memory					Power								
	Total Cores & Threads	P-core Max Turbo Freq (GHz) ⁵	Intel® Smart Cache LLC (MB)		Graphics Brand ²	Total X ^e Cores	Max Freq (GHz) / TOPS ^{1,3}	Intel vPro ^{®6} Eligible	Intel® SIPP	Total Platform PCIe Lanes, CPU PCIe Config	Thunderbolt™ Technology	Wi-Fi, Bluetooth [®]	Maximum Memory Speed (MT/s) ⁴	Maximum Memory Capacity (GB) ⁴	Processor Base Power (W)	Maximum Turbo Power (W) ⁷							
Intel® Core™ Ultra 5 Processors 338H	12	4.7	18	47	Intel® Arc™ B370 GPU	10	2.4 / 98	Yes	Yes	12 (8 G4, 4 G5)	4 Integrated Thunderbolt™ 4 Ports, Discrete Thunderbolt™ 5 Support	Integrated Wi-Fi 7 R2, Dual Bluetooth® Core 6.0	LP5/X 8533	96 (LP5/X)	25	64, 80							
					Intel® Arc™ Pro B370 GPU												LP5/X 8533 DDR5 7200						
Intel® Core™ Ultra 5 Processors 336H	12	4.6	18	47	Intel® Graphics	4	2.3 / 37			20 (8 G4, 12 G5)			12 (8 G4, 4 G5)					4 Integrated Thunderbolt™ 4 Ports	LP5/X 7467 DDR5 6400	96 (LP5/X) 128 (DDR5)	55	55	
Intel® Core™ Ultra 5 Processors 335	8	4.6	12	47	Intel® Graphics	4	2.45 / 40			No							No						55
Intel® Core™ Ultra 5 Processors 325	8	4.5	12	47	Intel® Graphics	4	2.45 / 40																
Intel® Core™ Ultra 5 Processors 332	6	4.4	12	46	Intel® Graphics	2	2.3 / 18			No			No				55						
Intel® Core™ Ultra 5 Processors 322	6	4.4	12	46	Intel® Graphics	2	2.3 / 18																

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1. **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.
2. **Intel® Arc™ Brand:** Built-in Intel® Arc™ GPU only available on select Intel® Core™ Ultra Series 3 processor-powered systems that meet minimum X^e core requirement. Other system configurations feature Intel® Graphics. For more information visit intel.com/arc. Results may vary.
3. **X^e Matrix eXtensions:** Intel® X^e 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.
4. **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 Panther Lake Enabling Document ([Doc ID 847650](#)).
5. **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.
6. **Intel vPro®:** Intel vPro® support requires Corporate ME Firmware, not supported with Consumer ME Firmware. Please refer to Intel vPro® brand requirements for Panther Lake ([Doc ID 820648](#)).
7. **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.
8. **Intel® Wi-Fi 7:** While Wi-Fi 7 is backward 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.