



12th Generation Intel® Core™ Mobile Processors— U-Series

Ultra-thin and fan-less laptops accelerate productivity on the go.



**Lightweight,
ultra-thin**

Most advanced, aggressive form factors



**Superior
productivity**

Enhanced Microsoft Office productivity and faster web browsing and photo editing



**On-the-go
connectivity**

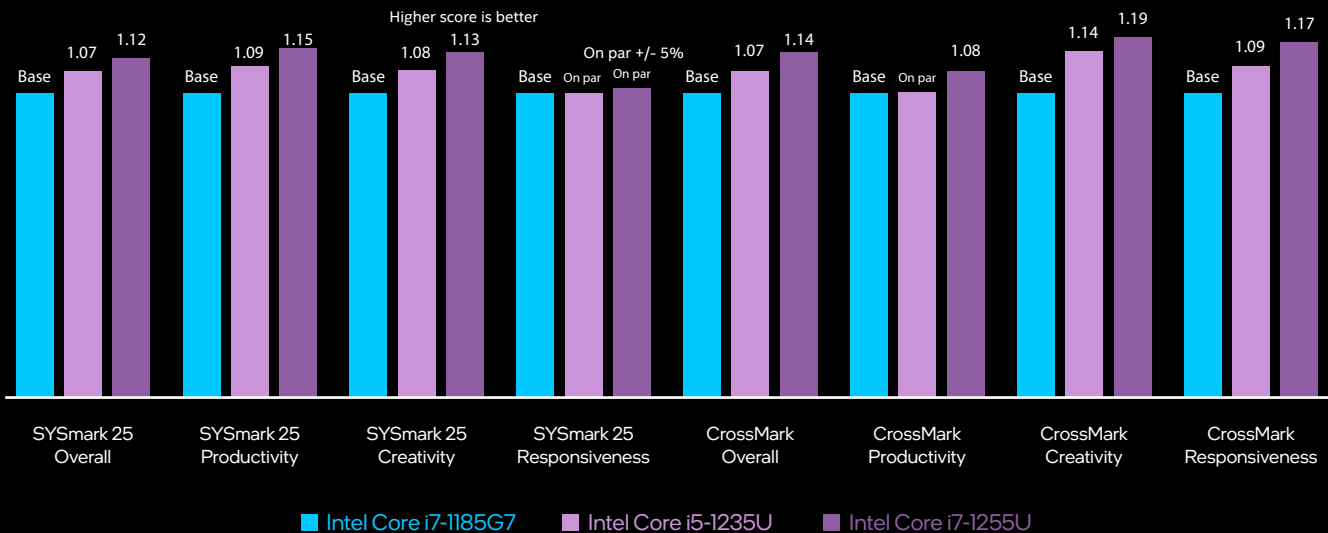
Cutting-edge platform technologies like Intel Wi-Fi 6E (Gig+)¹



12th Gen Intel Core mobile processors SKU comparison—U series/15 W

12th Gen Intel Core mobile processor	Processor cores	Processor threads	Number of P-cores²	Number of E-cores²	Intel® Smart Cache (L3)	Max turbo frequency (GHz) up to³		Base frequency (GHz)³		Processor graphics	Max graphics frequency (GHz) up to	Competing product
						P-core	E-core	P-core	E-core			
i7-1265U	10	12	2	8	12 MB	4.8	3.6	1.8	1.3	96EU	1.25	AMD Ryzen 7 6800U
i7-1255U	10	12	2	8	12 MB	4.7	3.5	1.7	1.2	96EU	1.25	AMD Ryzen 7 6800U
i5-1245U	10	12	2	8	12 MB	4.4	3.3	1.6	1.2	80EU	1.2	AMD Ryzen 7 6800U
i5-1235U	10	12	2	8	12 MB	4.4	3.3	1.3	0.9	80EU	1.2	AMD Ryzen 7 6800U
i3-1215U	6	8	2	4	10 MB	4.4	3.3	1.2	0.9	64EU	1.1	AMD Ryzen 5 6600U

Intel® Core™ i5 and i7 processors cross-generation comparison for U-series: 11th Generation vs. 12th Generation



Workloads

Testing by Intel as of 7/14/2022.

SYSmark 25 is a benchmark from the BAPCo consortium that measures the performance of Windows platforms. SYSmark 25 tests three usage scenarios: Productivity, Creativity, and Responsiveness. SYSmark contains real applications from ISVs such as Microsoft and Adobe.

CrossMark is an easy-to-run native cross-platform benchmark that measures overall system performance and system responsiveness using models of real-world applications. CrossMark supports devices running Windows, iOS, and macOS platforms. CrossMark is available for download in the Windows Store, iTunes, and the Mac App Store.

Configurations

Processor: Intel Core i7-1185G7 processor (up to 4.8 GHz, 4 cores, 8 threads); tested on reference platform; memory: 32 GB LPDDR5, 5,200 MHz; storage: 512 GB Samsung SSD; display resolution: 1920x1080; PC BIOS: 2021; OS: Windows 11 Enterprise v.97.0.1072.76; Intel® Iris® Xe graphics, GFX driver version: 30.0.101.1298; power mode: best performance (balanced plan).

Processor: Intel Core i5-1235U processor (up to 4.4 GHz, 2 P-cores, 8 E-cores); tested on reference platform; memory: 16 GB LPDDR4, 5,200 MHz; storage: 512 GB Samsung SSD; display resolution: 1920x1080; PC BIOS: 2021; OS: Windows 11 Enterprise v.97.0.1072.76; Intel Iris Xe graphics, GFX driver version: 30.0.101.1298; power mode: best performance (balanced plan).

Processor: Intel Core i5-1255U processor (up to 4.7 GHz, 2 P-cores, 8 E-cores); tested on reference platform; memory: 16 GB LPDDR4, 5,200 MHz; storage: 512 GB Samsung SSD; display resolution: 1920x1080; PC BIOS: 2021; OS: Windows 11 Enterprise v 21H2 2200.739; Intel Iris Xe graphics, GFX driver version: 30.0.101.1298; power mode: best performance (balanced plan).

¹ Wi-Fi 6E usage subject to 6 GHz band availability, operating system support, and router compatibility. Details at www.intel.com/performanceindex (connectivity).

² Performance hybrid architecture combines two core microarchitectures, Performance-cores (P-cores) and Efficient-cores (E-cores), on a single processor die. Select 12th Gen Intel Core processors (certain 12th Gen Intel Core i5 processors and lower) do not have performance hybrid architecture, only P-cores.

³ The frequency of cores and core types varies by workload, power consumption, and other factors. Visit intel.com/content/www/us/en/architecture-and-technology/turbo-boost/turbo-boost-technology.html for more information.

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 configuration disclosure for additional 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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