

Single Thread Performance

This chart comparing the single thread performance of CPUs is made using thousands of [PerformanceTest](#) benchmark results and is updated daily. This chart compares Desktop CPUs, from high end CPUs (such as Intel Core i9, Intel Core i7 and AMD Phenom Ryzen processors) to mid-range and lower end CPUs (such as Intel Pentium 4 and AMD Athlon processors) and also Server CPUs.

Top CPUs:	CPU Mark	Price Performance
Desktop:	CPU Mark	Price Performance
Laptop:	CPU Mark	Price Performance
Server:	CPU Mark	Price Performance
Mobile/Embedded:	CPU Mark	Price Performance


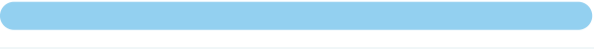



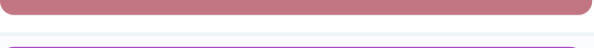




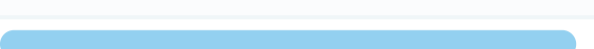
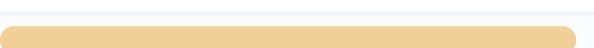

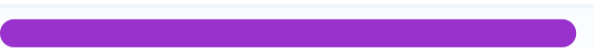




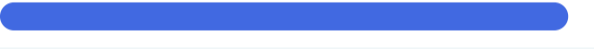


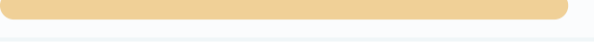

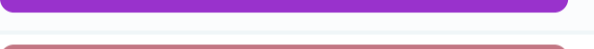








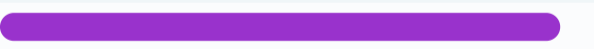






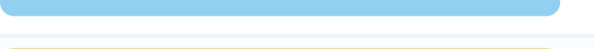


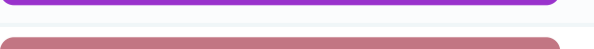

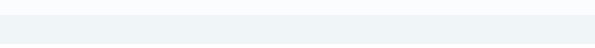


PassMark - CPU Mark

Single Thread Performance
Updated 31st of May 2024

CPU	CPU Mark	Price (USD)
Intel Core i9-14900KS	4,897	\$649.39
Apple M3 8 Core	4,852	NA
Apple M3 Max 16 Core	4,782	NA
Apple M3 Pro 12 Core	4,780	NA
Apple M3 Max 14 Core	4,773	NA
Intel Core i9-13900KS	4,760	\$589.99
Intel Core i9-14900K	4,759	\$549.00
Apple M3 Pro 11 Core	4,741	NA
Intel Core i9-14900KF	4,725	\$861.21*
Intel Core i9-13900K	4,632	\$460.75
Intel Core i9-13900KF	4,623	\$450.52
Intel Core i9-14900	4,617	\$579.99
Intel Core i9-14900F	4,559	\$528.99
Apple A17 Pro	4,533	NA
Apple M4 9 Core	4,509	NA
Apple M4 10 Core	4,504	NA
Intel Core i7-14700K	4,482	\$389.98
Intel Core i7-14700KF	4,476	\$392.99
Intel Core i9-13900F	4,444	\$435.00
Intel Core i7-13700K	4,365	\$329.98
Intel Core i7-13700KF	4,355	\$291.56

Intel Core i9-12900KS		4,348	\$319.99
Intel Core i9-13900		4,343	\$480.00

CPU Benchmarks ▼

Intel Core i9-14900HX		4,333	\$679.00*
Intel Xeon E-2488		4,321	\$606.00*
Intel Core i9-13980HX		4,312	\$668.00*
Intel Core i5-14600KF		4,304	\$293.99
Intel Core i5-14600K		4,291	\$306.99
AMD Ryzen 9 7950X		4,286	\$489.98
AMD Ryzen 9 7900X		4,267	\$381.66
Intel Core i9-13900T		4,222	\$549.00*
Intel Core i7-14700		4,219	\$399.98
AMD Ryzen 7 7700X		4,213	\$280.69
Intel Xeon E-2456		4,209	\$375.00*
Intel Core i9-14900T		4,192	\$549.00*
AMD Ryzen 9 PRO 7945		4,184	NA
Apple M2 Ultra 24 Core		4,173	NA
Intel Core i7-13790F		4,171	\$429.00
Intel Core i9-12900K		4,170	\$276.94
Intel Core i9-12900KF		4,166	\$272.98
AMD Ryzen 5 7600X		4,153	\$199.98
AMD Ryzen 9 7900		4,153	\$368.99
Intel Xeon E-2436		4,151	\$319.00*
Apple M2 Max 12 Core 3680 MHz		4,151	NA
Intel Core i9-13900HX		4,150	\$668.00*
Intel Core i5-13600K		4,148	\$259.98
AMD Ryzen 9 7950X3D		4,144	\$547.37
AMD Ryzen Threadripper 7970X		4,143	\$2,399.00
Intel Core i7-13700		4,143	\$371.99
Intel Core i5-13600KF		4,137	\$234.98
AMD Ryzen Threadripper PRO 7955WX		4,127	NA
AMD Ryzen 9 7900X3D		4,126	\$405.59
Intel Core i7-13700F		4,122	\$360.66
AMD Ryzen 9 7945HX3D		4,117	NA
Apple M2 Pro 12 Core 3480 MHz		4,111	NA
Apple M2 Pro 10 Core 3480 MHz		4,106	NA
AMD Ryzen 7 PRO 7745		4,101	NA
Apple A16 Bionic		4,085	NA
AMD Ryzen Threadripper PRO 7945WX		4,084	NA
AMD Ryzen Threadripper 7960X		4,077	\$1,399.00
AMD Ryzen Threadripper PRO 7965WX		4,072	\$2,649.00
Intel Core i9-12900F		4,070	\$362.99
AMD Ryzen Threadripper PRO 7975WX		4,064	\$3,899.00
AMD Ryzen 9 7945HX		4,064	NA
AMD Ryzen 7 7700		4,064	\$276.94
Intel Xeon E E-2486		4,062	\$506.00*
Intel Core i9-13950HX		4,061	\$590.00*
Intel Core i5-14600		4,059	\$255.00*
Intel Core i5-13600		4,055	\$255.00*
Intel Core i9-12900		4,048	\$393.00

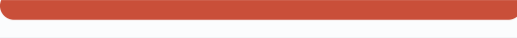



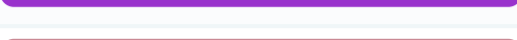

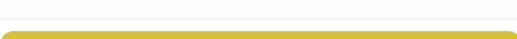




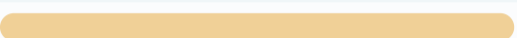









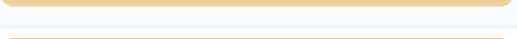

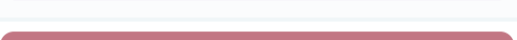





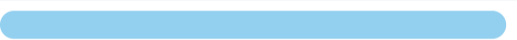
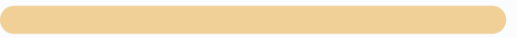







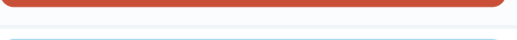
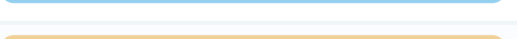
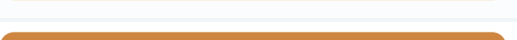

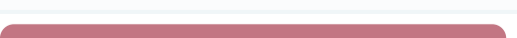

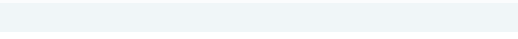


Intel Core i7-12700K	4,034	\$409.00*
Intel Xeon F-2468	4,029	\$426.00*

CPU Benchmarks

AMD Ryzen Threadripper 7980X	4,027	\$4,999.00
Intel Core i7-12700KF	4,019	\$189.27
AMD Ryzen Threadripper PRO 7985WX	4,012	\$7,349.00
Intel Core i5-14500	4,006	\$239.98
AMD Ryzen 7 PRO 8700G	3,998	NA
AMD Ryzen 9 8945H	3,996	NA
AMD Ryzen 9 7845HX	3,985	NA
AMD Ryzen 7 PRO 8700GE	3,977	NA
AMD Ryzen 7 7745HX	3,959	NA
Intel Core i9-13900HK	3,956	\$697.00*
Intel Core i5-12600K	3,952	\$175.71
AMD Ryzen Threadripper PRO 7995WX	3,952	\$9,999.00*
Intel Core i7-14700HX	3,948	\$495.00*
AMD Ryzen 9 7940HX	3,940	NA
AMD Ryzen 7 8700G	3,934	\$329.00
Intel Core i5-12600KF	3,931	\$153.83
Intel Core i9-12900TE	3,926	\$544.00*
Apple M2 8 Core 3500 MHz	3,924	NA
AMD Ryzen 5 PRO 8500G	3,924	NA
AMD Ryzen 5 7600	3,923	\$188.99
AMD Ryzen 5 7645HX	3,915	NA
Intel Core i7-12700	3,915	\$265.48
AMD Ryzen 9 7940HS	3,911	NA
AMD Ryzen 5 PRO 8600GE	3,908	NA
AMD Ryzen 5 PRO 8500GE	3,903	NA
Intel Core i5-13490F	3,899	\$279.00
Intel Core i7-13700T	3,895	\$384.00*
AMD Ryzen 5 PRO 7645	3,894	NA
AMD Ryzen 5 8500G	3,893	\$179.00
Intel Core i5-13500	3,891	\$199.99
Intel Core i7-13700HX	3,880	\$485.00*
Intel Core i7-12700F	3,877	\$249.99
AMD Ryzen 5 PRO 8600G	3,872	NA
Apple M1 Ultra 20 Core	3,867	NA
Intel Core i7-14650HX	3,867	\$495.00*
AMD Ryzen 9 8945HS	3,864	NA
Intel Core i9-12900HX	3,863	\$606.00*
AMD Ryzen 5 8600G	3,863	\$228.99
Intel Core i9-13900H	3,862	\$617.00*
Intel Core i5-13500E	3,858	\$235.00*
Intel Core i7-13850HX	3,849	\$428.00*
Intel Core 5 120U	3,840	\$340.00*
AMD Ryzen 5 7500F	3,838	NA
AMD Ryzen 3 PRO 8300G	3,838	NA
Apple M1 Max 10 Core 3200 MHz	3,837	NA
Intel Core i5-13600HX	3,834	\$284.00*
Intel Core i7-13650HX	3,830	\$485.00*


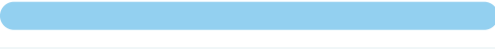



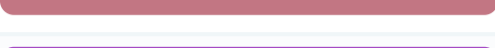




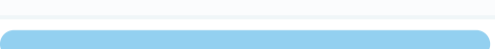
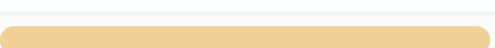

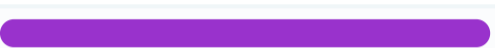







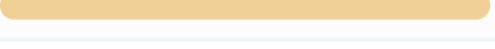

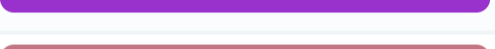








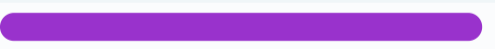






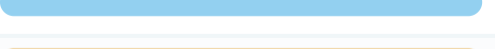


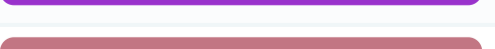

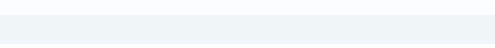


Intel Core i9-12950HX		3,828	\$590.00*
Intel Core i5-13600T		3,823	\$255.00*

🏠 CPU Benchmarks ▼

AMD Ryzen 7 8840U		3,819	NA
Intel Core i9-12900T		3,818	\$489.00*
Apple M1 Pro 10 Core 3200 MHz		3,809	NA
Intel Core i3-14100		3,803	\$145.99
Intel Core i9-12900H		3,802	\$617.00*
AMD Ryzen 7 7840HS		3,790	NA
Intel Core i5-14400		3,783	\$217.49
Intel Core i7-12700E		3,777	\$344.00*
AMD Ryzen 5 8540U		3,776	NA
AMD Ryzen Z1		3,774	NA
AMD Ryzen 7 8845H		3,773	NA
Apple M1 Pro 8 Core 3200 MHz		3,773	NA
Intel Core i5-12600HE		3,772	\$315.00*
AMD Ryzen 3 PRO 8300GE		3,772	NA
Intel Core i3-14100F		3,772	\$111.98
Intel Core i7-12800HX		3,766	\$457.00*
AMD Ryzen 7 PRO 8840HS		3,755	NA
AMD Ryzen 7 7800X3D		3,755	\$339.99
Intel Core i5-14400T		3,741	\$221.00*
Intel Core Ultra 9 185H		3,739	NA
AMD Ryzen 7 7840H		3,735	NA
Intel Core i5-12500E		3,735	\$225.00*
Intel Core i5-12490F		3,734	\$179.00
Intel Xeon E E-2414		3,732	\$213.00*
AMD Ryzen 7 8845HS		3,732	NA
Intel Core i5-14400F		3,731	\$199.98
AMD Ryzen 5 7540U		3,722	NA
Intel Core i7-12850HX		3,718	\$428.00*
Intel Xeon w7-2475X		3,717	\$1,789.00*
Intel Core i7-1270PE		3,715	\$441.00*
AMD Ryzen 9 PRO 7940HS		3,711	NA
Intel Core i5-13500TE		3,711	\$235.00*
Intel Core i7-13620H		3,702	\$502.00*
Apple M1 8 Core 3200 MHz		3,700	NA
Intel Core i5-12600HX		3,700	\$284.00*
Intel Core 3 100U		3,696	NA
AMD Ryzen 5 PRO 7640HS		3,696	NA
Intel Core i5-12500		3,695	\$202.00*
AMD Ryzen 7 PRO 7840U		3,694	NA
Intel Core i5-13400		3,692	\$179.99
Intel Core i5-1340PE		3,690	\$315.00*
Intel Core i5-13600H		3,686	\$311.00*
AMD Ryzen 7 7840S		3,680	NA
AMD Ryzen 7 8840HS		3,669	NA
Intel Core i9-13905H		3,664	\$697.00*
Intel Core i9-12900HK		3,663	\$635.00*
Intel Xeon E E-2434		3,660	\$281.00*

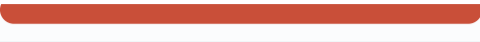





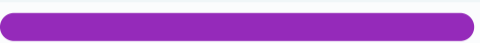






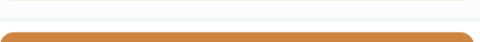

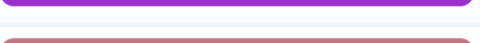










Intel Core i7-13700H		3,657	\$502.00*
Intel Core i5-13400F		3,653	\$199.77

CPU Benchmarks ▼

Intel Core i3-13100		3,646	\$131.72
Intel Core i7-13705H		3,639	\$502.00*
AMD Ryzen Z1 Extreme		3,635	NA
Intel Core i3-12300		3,630	\$143.00*
Intel Core i5-1350P		3,630	NA
Intel Core i5-13500HX		3,628	\$326.00*
Intel Core i7-12700T		3,627	\$339.00*
AMD Ryzen 5 7640HS		3,615	NA
Intel Core i7-12650H		3,612	\$457.00*
Intel Core i3-13100F		3,607	\$96.98
Apple A15 Bionic		3,606	NA
Intel Xeon w7-2495X		3,603	\$2,603.96*
AMD Ryzen 7 7840U		3,597	NA
Intel Core Ultra 7 155U		3,596	\$490.00*
Intel Core i7-12700H		3,593	\$457.00*
Intel Core i9-13900E		3,592	\$554.00*
Intel Core i7-1360P		3,588	\$480.00*
Intel Core Ultra 7 165H		3,583	NA
Intel Core Ultra 5 135H		3,578	NA
Intel Core i5-1350P		3,578	\$320.00*
Intel Core i5-12600H		3,576	\$311.00*
Intel Xeon W-1390P @ 3.50GHz		3,576	NA
Intel Core i7-13800H		3,574	\$457.00*
Intel Core i5-13500H		3,572	NA
AMD Ryzen 5 PRO 7540U		3,568	NA
Intel Core i7-1365U		3,567	\$426.00*
Intel Core i5-13450HX		3,565	\$326.00*
Intel Core i7-1355U		3,560	\$469.00*
Intel Core i3-1315U		3,559	\$309.00*
Intel Core i7-1370P		3,558	NA
Intel Xeon w5-2455X		3,557	\$1,039.00*
Intel Core Ultra 7 155H		3,549	NA
Intel Core i9-11900KF @ 3.50GHz		3,549	\$220.53
AMD Ryzen 5 7640U		3,547	NA
Intel U300E		3,546	\$196.00*
Intel Core i5-1340P		3,542	\$353.00*
Intel Xeon W-1350P @ 4.00GHz		3,539	\$372.23*
Intel Core i5-1250P		3,537	NA
Intel Core i5-1335U		3,531	\$340.00*
Intel Core i5-1345U		3,529	\$309.00*
Intel Core i5-12400		3,528	\$192.00*
Intel Xeon W-1370P @ 3.60GHz		3,527	\$508.99*
Intel Core i5-12500T		3,521	\$202.00*
Intel Core i9-11900K @ 3.50GHz		3,520	\$253.99
Intel Core i5-12400F		3,511	\$108.84
Intel Core i9-12900E		3,509	NA
Intel Core Ultra 5 125H		3,508	NA

Intel Core i5-13400T		3,507	\$221.00*
Intel Xeon w5-2465X		3,507	\$1,497.04

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Intel Xeon w5-3435X		3,500	\$1,677.88
Intel Core i7-12800H		3,499	\$457.00*
Intel Core i5-14500T		3,497	\$232.00*
Intel Xeon W-1350 @ 3.30GHz		3,494	\$335.99*
Intel Core i5-13420H		3,487	\$342.00*
Intel Xeon W-1370 @ 2.90GHz		3,483	\$468.99*
Intel Core i3-12100E		3,481	\$138.00*
Intel Core i5-12600T		3,480	NA
Intel Core i5-12500H		3,480	\$311.00*
Intel Core i5-14500HX		3,479	\$337.00*
Intel Core i3-1220PE		3,474	\$295.00*
AMD Ryzen 7 PRO 7840HS		3,474	NA
AMD Ryzen 9 5900X		3,471	\$277.97
AMD Ryzen 9 5950X		3,469	\$360.27
Intel Core i3-12100F		3,466	\$84.98
Intel Xeon w9-3475X		3,465	\$3,917.83
Intel Core Ultra 7 165U		3,456	NA
Intel Xeon w9-3495X		3,456	\$5,889.00*
AMD Ryzen 9 5900		3,449	NA
AMD Ryzen 7 5800X		3,445	\$194.50
Intel Xeon E-2388G @ 3.20GHz		3,444	\$539.00*
AMD Ryzen 9 6900HX		3,442	NA
AMD Ryzen 5 PRO 5645		3,441	NA
AMD Ryzen 7 PRO 5845		3,439	NA
Intel Core Ultra 5 125U		3,436	\$363.00*
Intel Core i3-12100		3,432	\$122.00*

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