


CPU Benchmarks


Over 1,000,000 CPUs Benchmarked

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.



CPUS




High End

High Mid Range

Low Mid Range


Low End



Best Value (On Market)


Best Value XY Scatter

Best Value (All time)



New Desktop

New Laptop



Single Thread

Systems with Multiple CPUs


Overclocked

Power Performance

CPU Mark by Socket Type


Cross-Platform CPU Performance

Top Gaming CPUs




CPU Mega List

Search Model



Compare⁰



Common

Most Benchmarked

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 28th of June 2023

CPU	CPU Mark	Price (USD)
Intel Core i9-13900KS	4,787	\$999.99
Intel Core i9-13900KF	4,683	\$546.49
Intel Core i9-13900K	4,679	\$569.97
Intel Core i9-13900F	4,531	\$526.03
Intel Core i9-13980HX	4,412	\$668.00*
Intel Core i7-13700K	4,397	\$407.99
Intel Core i7-13700KF	4,389	\$390.98
Intel Core i9-13900	4,384	\$549.99
Intel Core i9-12900KS	4,360	\$399.99
AMD Ryzen 9 7950X	4,327	\$540.99
AMD Ryzen 9 7900X	4,327	\$409.00
Intel Core i9-13900T	4,321	\$549.00*
AMD Ryzen 7 7700X	4,277	\$315.75
Intel Core i9-13900HX	4,264	\$668.00*
Intel Core i7-13700F	4,256	\$360.99
Intel Core i9-13900HK	4,240	\$697.00*
AMD Ryzen 9 7950X3D	4,231	\$661.08
AMD Ryzen 5 7600X	4,221	\$218.00
AMD Ryzen 9 7900	4,214	\$419.99
Intel Core i9-12900K	4,203	\$352.99
Intel Core i9-13950HX	4,193	\$590.00*
Intel Core i9-12900KF	4,187	\$398.99
Intel Core i5-13600KF	4,185	\$292.99
Intel Core i5-13600K	4,183	\$309.99



AMD vs Intel
Market Share

Intel Core i7-13700	4,168	\$349.99
AMD Ryzen 7 7700	4,167	\$319.79

CPU Benchmarks

Video Card Benchmarks

Hard Drive Benchmarks

RAM

PC Systems

Android

iOS / iPhone

Apple M2 Max 12 Core 3680 MHz	4,150	NA
Apple M2 Pro 12 Core 3480 MHz	4,147	NA
AMD Ryzen 9 7900X3D	4,144	\$561.05
AMD Ryzen 9 7940H	4,127	NA
Intel Core i9-12900F	4,101	\$425.00
AMD Ryzen 9 7940HS	4,086	NA
Intel Core i9-12900	4,079	\$449.99
Intel Core i7-13700HX	4,061	\$485.00*
Intel Core i7-12700K	4,056	\$409.00*
Intel Core i7-12700KF	4,046	\$276.00
Intel Core i5-13600	4,041	\$255.00*
AMD Ryzen 9 7845HX	4,035	NA
Apple M2 Ultra 24 Core	4,034	NA
Intel Core i7-13700T	4,028	\$384.00*
AMD Ryzen 5 7600	4,011	\$219.99
Apple M2 8 Core 3500 MHz	3,996	NA
Intel Core i9-13900H	3,985	\$617.00*
AMD Ryzen 7 7840HS	3,978	NA
Intel Core i5-12600K	3,974	\$199.99
Intel Core i5-13600H	3,954	\$311.00*
Intel Core i5-13500	3,951	\$247.98
Intel Core i7-13850HX	3,951	\$428.00*
Intel Core i5-12600KF	3,949	\$219.94
Intel Core i9-12900T	3,946	\$489.00*
Intel Core i7-12700	3,940	\$325.49
Intel Core i7-13650HX	3,937	\$485.00*
Intel Core i5-13600T	3,936	\$255.00*
Intel Core i7-12700F	3,932	\$284.99
Intel Core i9-12900HX	3,928	\$606.00*
Intel Core i9-12900E	3,926	NA
Intel Core i7-13620H	3,919	\$502.00*
Intel Core i5-13600HX	3,913	\$284.00*
AMD Ryzen Z1 Extreme	3,889	NA
Intel Core i9-12950HX	3,881	\$590.00*
Apple M1 Ultra 20 Core	3,871	NA
Intel Core i9-12900H	3,869	\$617.00*
Intel Core i7-12700E	3,852	\$344.00*
Intel Core i7-12800HX	3,848	\$457.00*
AMD Ryzen 5 7540U	3,846	NA
Apple M1 Max 10 Core 3200 MHz	3,846	NA
Intel Core i5-12600	3,844	\$260.00
Apple M1 Pro 10 Core 3200 MHz	3,820	NA
AMD Ryzen 7 7800X3D	3,799	\$439.00
Intel Core i7-1360P	3,785	\$480.00*
Apple M1 Pro 8 Core 3200 MHz	3,783	NA
Intel Core i7-1355U	3,781	\$469.00*
Intel Core i5-1335U	3,771	\$340.00*
Intel Core i5-12490F	3,761	\$181.99
Intel Core i7-13700H	3,749	\$502.00*
Intel Core i5-12600HX	3,742	\$284.00*
Intel Core i3-13100	3,740	\$128.67

Intel Core i5-12500E	3,735	\$225.00*
Intel Core i7-12650H	3,733	\$457.00*

CPU Benchmarks Video Card Benchmarks Hard Drive Benchmarks RAM PC Systems Android iOS / iPhone

Intel Core i7-1370P	3,722	NA
Intel Core i9-12900HK	3,721	\$635.00*
Intel Core i5-12500	3,720	\$202.00*
Intel Core i7-12850HX	3,716	\$428.00*
Apple M1 8 Core 3200 MHz	3,714	NA
Intel Core i5-13400	3,705	\$228.26
Intel Core i3-13100F	3,703	\$110.99
Intel Core i5-13400F	3,702	\$164.99
Intel Core i5-13400T	3,679	\$221.00*
Intel Core i5-13500H	3,678	NA
Intel Core i5-13500T	3,673	\$232.00*
Intel Core i7-12700T	3,668	\$339.00*
Intel Xeon w7-2495X	3,648	\$2,603.96*
Intel Core i7-12700H	3,642	\$457.00*
Intel Core i3-12300	3,637	\$143.00*
Apple A15 Bionic	3,632	NA
Intel Core i7-1365U	3,621	\$426.00*
Intel Core i5-1340P	3,610	\$353.00*
Intel Core i3-1315U	3,600	\$309.00*
Intel Xeon W-1390P @ 3.50GHz	3,591	NA
Intel Core i5-12500T	3,570	\$202.00*
Intel Core i5-12600H	3,569	\$311.00*
Intel Core i9-11900KF @ 3.50GHz	3,561	\$415.99
Intel Xeon W-1350P @ 4.00GHz	3,557	\$372.23
Intel Core i3-1210U	3,554	NA
Intel Core i5-12400	3,549	\$192.00*
Intel Core i5-12400F	3,543	\$149.99
Intel Xeon W-1370 @ 2.90GHz	3,538	\$468.99
Intel Xeon W-1370P @ 3.60GHz	3,533	\$508.99
Intel Core i9-11900K @ 3.50GHz	3,532	\$318.90
Intel Core i5-12450H	3,527	\$311.00*
Intel Core i3-13100T	3,514	\$134.00*
Intel Core i5-12500H	3,514	\$311.00*
Intel Core i5-1250P	3,510	NA
Intel Core i7-12800H	3,508	\$457.00*
AMD Ryzen 9 PRO 5945	3,496	NA
Intel Xeon W-1350 @ 3.30GHz	3,494	\$335.99
Intel Core i3-12100F	3,494	\$136.99
Intel Core i3-12100	3,492	\$122.00*
Intel Xeon E-2388G @ 3.20GHz	3,485	\$539.00*
Intel Xeon E-2378G @ 2.80GHz	3,477	\$659.53*
AMD Ryzen 9 5900X	3,471	\$299.99
AMD Ryzen 9 5950X	3,470	\$441.71
AMD Ryzen 7 7735H	3,459	NA
AMD Ryzen 7 PRO 5845	3,453	NA
Intel Core i9-11900 @ 2.50GHz	3,453	\$419.99
AMD Ryzen 9 5900	3,451	NA
Intel Core i5-12400T	3,449	\$149.99
AMD Ryzen 7 5800X	3,447	\$225.03
AMD Ryzen 9 6900HX	3,446	NA
AMD Ryzen 9 PRO 6950HS	3,444	NA

CPU Benchmarks	AMD Ryzen 7 7736U	3,444	NA
	AMD Ryzen 5 PRO 5645	3,441	NA
Video Card Benchmarks			
Hard Drive Benchmarks			
RAM			
PC Systems			
Android			
iOS / iPhone			
CPU Benchmarks	Intel Core i7-11700K @ 3.60GHz	3,422	\$276.10
	Intel Xeon Gold 5420+	3,418	\$1,848.00*
	AMD Ryzen 5 7535HS	3,416	NA
	Intel Xeon W-1390 @ 2.80GHz	3,414	\$573.99
	Intel Xeon E-2386G @ 3.50GHz	3,404	\$482.00*
	Intel Xeon E-2356G @ 3.20GHz	3,403	\$333.00*
	Intel Core i5-12600T	3,403	NA
	Intel Core i7-11700KF @ 3.60GHz	3,402	\$262.99
	AMD Ryzen 7 5800	3,401	NA
	Intel Core i3-1215U	3,401	NA
	AMD Ryzen 7 7735HS	3,399	NA
	Apple A14 Bionic	3,399	NA
	Intel Core i3-12300T	3,395	\$157.00*
	Intel Core i7-1270P	3,390	NA
	Intel Core i3-1220P	3,390	\$281.00*
	AMD Ryzen 7 5700X	3,385	\$184.99
	Intel Core i5-12500TE	3,385	\$205.00*
	AMD EPYC 9274F	3,380	NA
	Intel Core i7-11700B @ 3.20GHz	3,374	NA
	Intel Core i7-13800H	3,370	\$457.00*
	AMD Ryzen 9 5980HX	3,369	NA
	Intel Core i5-11600K @ 3.90GHz	3,367	\$178.48
	AMD Ryzen 9 6900HS Creator Edition	3,362	NA
	AMD Ryzen Threadripper PRO 5965WX	3,360	\$1,999.99
	AMD Ryzen 5 5600X	3,359	\$156.41
	Intel Core i5-11600KF @ 3.90GHz	3,354	\$214.82
	Intel Core i7-1260P	3,354	NA
	Intel Core i7-1265U	3,353	\$426.00*
	Intel Xeon W-11955M @ 2.60GHz	3,352	\$623.00*
	Intel Core i9-11900KB @ 3.30GHz	3,348	\$539.00*
	Intel Core i7-1255U	3,348	\$426.00*
	Intel Xeon E-2374G @ 3.70GHz	3,347	\$399.99
	AMD Ryzen 7 5700GE	3,346	NA
	AMD Ryzen Threadripper PRO 5945WX	3,343	NA
	Intel Core i3-12100T	3,339	\$122.00*
	Intel Core i3-12100TE	3,334	\$125.00*
	AMD Ryzen 9 6900HS	3,334	NA
	AMD Ryzen 7 PRO 5750G	3,324	NA
	Intel Core i7-1280P	3,322	\$482.00*
	AMD Ryzen 5 PRO 6650H	3,318	NA
	Intel Core i9-11900T @ 1.50GHz	3,314	\$439.00*
	Intel Core i7-12800HE	3,313	\$506.00*
	Intel Core i9-11980HK @ 2.60GHz	3,313	\$583.00*
	Intel Core i7-11700F @ 2.50GHz	3,312	\$225.99
	AMD Ryzen 9 5900H	3,312	NA
	Intel Xeon W-11865MRE @ 2.60GHz	3,310	\$480.00*
	Intel Xeon Gold 5415+	3,310	\$1,066.00*
	AMD Ryzen Threadripper PRO 5975WX	3,307	\$2,699.99
	AMD Ryzen Threadripper PRO 5995WX	3,307	\$5,699.99

Intel Core i5-1240P	3,306	NA
Intel Core i5-1235U	3,306	\$309.00*

CPU Benchmarks Video Card Benchmarks Hard Drive Benchmarks RAM PC Systems Android iOS / iPhone

AMD Ryzen 7 6800HS Creator Edition	3,294	NA
AMD Ryzen 7 5700G	3,286	\$167.86
AMD Ryzen 7 6800H	3,286	NA
AMD Ryzen Threadripper PRO 5955WX	3,283	\$1,099.99
Intel Xeon E-2378 @ 2.60GHz	3,278	\$468.81
Intel Xeon w7-3465X	3,278	\$2,889.00*
Intel Xeon W-11855M @ 3.20GHz	3,278	\$450.00*
AMD Ryzen 9 5900HS Creator Edition	3,275	NA
AMD Ryzen 7 PRO 6850HS	3,274	NA
AMD Ryzen 7 5700	3,260	NA
AMD Ryzen 5 5600	3,259	\$119.99
AMD Ryzen 7 7730U	3,254	NA
AMD Ryzen 5 6600H	3,250	NA
AMD Ryzen 7 PRO 6850H	3,246	NA
Intel Xeon E-2334 @ 3.40GHz	3,244	\$304.99
AMD Ryzen 7 7735U	3,241	NA
AMD Ryzen 5 5600GE	3,235	NA
Intel Core i5-11500B @ 3.30GHz	3,231	NA
AMD Ryzen 7 PRO 6850U	3,227	NA
AMD Ryzen 9 PRO 6950H	3,224	NA
Intel Core i5-1240U	3,224	NA
Intel Xeon E-2324G @ 3.10GHz	3,223	\$269.99
AMD Ryzen 7 6800U	3,220	NA
AMD Ryzen 5 7530U	3,213	NA
Intel Core i9-11950H @ 2.60GHz	3,212	\$556.00*
AMD Ryzen 7 5800X3D	3,212	\$289.55
AMD Ryzen 9 5900HX	3,210	NA
Intel Xeon E-2336 @ 2.90GHz	3,209	\$347.99
AMD Ryzen 7 6800HS	3,201	NA
Intel Xeon W-11555MRE @ 2.60GHz	3,201	\$326.00*
AMD Ryzen 5 6600U	3,198	NA
AMD Ryzen 7 PRO 6860Z	3,195	NA
AMD Ryzen 3 PRO 7330U	3,194	NA
Intel Xeon W-1290P @ 3.70GHz	3,192	\$649.40*
AMD Ryzen 9 5900HS	3,190	NA
AMD Ryzen 5 5600G	3,188	\$121.80
Intel Pentium Gold 8505	3,187	NA
AMD Ryzen 5 PRO 7530U	3,185	NA
Intel Core i9-10910 @ 3.60GHz	3,181	NA
AMD Ryzen 5 PRO 5650GE	3,180	NA
Intel Xeon Gold 5416S	3,179	\$944.00*
Intel Xeon Silver 4410Y	3,178	\$563.00*
AMD Ryzen 5 PRO 5650G	3,177	NA
AMD Ryzen 5 6600HS Creator Edition	3,172	NA
Intel Core i5-13420H	3,172	\$342.00*
Intel Core i9-11900H @ 2.50GHz	3,167	\$546.00*
Intel Core i5-1245U	3,166	\$309.00*
AMD Ryzen 9 5980HS	3,166	NA
AMD Ryzen 5 PRO 6650U	3,161	NA

Intel Core i7-11700 @ 2.50GHz	3,158	\$194.99
Intel Core i7-11850H @ 2.50GHz	3,152	\$395.00*

CPU Benchmarks Video Card Benchmarks Hard Drive Benchmarks RAM PC Systems Android iOS / iPhone

Intel Core i9-10900KF @ 3.70GHz	3,134	\$315.19
Intel Core i7-11800H @ 2.30GHz	3,108	\$395.00*
AMD Ryzen 5 7535U	3,105	NA
Intel Core i3-1215UE	3,104	\$313.00*
AMD Ryzen 3 PRO 5350GE	3,102	NA
AMD Ryzen 3 PRO 5350G	3,101	NA

<u>Software</u>	<u>Hardware</u>	<u>Benchmarks</u>	<u>About Us</u>	<u>Services</u>	<u>International</u>
BurnInTest	USB3.0 Loopback Plugs	CPU Benchmarks	Company	Store	Disclaimer
PerformanceTest	USB2.0 Loopback Plugs	Video Card Benchmarks	Contact Us	Support	Refunds
OSForensics	PCIe Test Cards	Hard Drive Benchmarks	The Press Room	Forums	Privacy
MemTest86	USB Power Delivery Tester	RAM Benchmarks			Social  
WirelessMon	Serial and Parallel Loopback Plugs	PC Systems Benchmarks			
Management Console	USB Short Circuit Testers	Android Benchmarks			
Zoom Search Engine		iOS / iPhone Benchmarks			
Free Software		Software Marketshare			
		Internet Bandwidth			

