



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.


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 29th of March 2023



CPU	CPU Mark	Price (USD)
Intel Core i9-13900KS	4,793	\$729.99
Intel Core i9-13900KF	4,693	\$554.99
Intel Core i9-13900K	4,684	\$569.99
Intel Core i9-13900	4,550	\$569.99
Intel Core i9-13900F	4,515	\$549.99
Intel Core i9-13980HX	4,420	\$668.00*
Intel Core i7-13700K	4,400	\$417.94
Intel Core i7-13700KF	4,394	\$394.99
Intel Core i9-12900KS	4,374	\$411.99

AMD Ryzen 9 7950X	4,321	\$571.69
Intel Core i9-13900HX	4,288	\$668.00*
 CPU Benchmarks ▼		
AMD Ryzen 7 7700X	4,277	\$344.99
Intel Core i7-13700E	4,263	\$368.99
AMD Ryzen 9 7950X3D	4,240	\$699.00
AMD Ryzen 9 7900	4,218	\$429.00
AMD Ryzen 5 7600X	4,217	\$249.99
Intel Core i9-12900K	4,206	\$355.99
Intel Core i9-13900T	4,199	\$549.00*
AMD Ryzen 9 7945HX	4,196	NA
Intel Core i5-13600K	4,191	\$319.84
Intel Core i9-12900KE	4,190	\$399.99
Intel Core i5-13600KF	4,189	\$296.49
AMD Ryzen 7 7700	4,162	\$327.97
AMD Ryzen 9 7900X3D	4,159	\$584.99
Apple M2 Pro 12 Core 3480 MHz	4,148	NA
Apple M2 Max 12 Core 3680 MHz	4,138	NA
Apple M2 Pro 10 Core 3480 MHz	4,136	NA
Intel Core i9-13900H	4,124	\$617.00*
Intel Core i9-12900E	4,096	\$482.98
Intel Core i9-12900	4,075	\$537.99
Intel Core i7-12700K	4,059	\$409.00*
Intel Core i7-13700T	4,051	\$384.00*
Intel Core i7-12700KE	4,046	\$234.99
Intel Core i7-13700HX	4,045	\$485.00*
AMD Ryzen 9 7845HX	4,035	NA
Apple M2 8 Core 3500 MHz	4,007	NA
AMD Ryzen 5 7600	3,989	\$229.00
Intel Core i9-12900HX	3,979	\$606.00*
Intel Core i5-12600K	3,975	\$193.87
Intel Core i5-13600	3,966	\$255.00*
Intel Core i5-13500	3,951	\$249.98
Intel Core i5-12600KE	3,948	\$213.82
Intel Core i9-12900T	3,944	\$489.00*
Intel Core i7-12700	3,941	\$344.21
AMD Ryzen 7 7840HS	3,936	NA
Intel Core i5-13600T	3,936	\$255.00*
Intel Core i7-12700E	3,931	\$289.99
Intel Core i9-12900E	3,926	NA
Intel Core i5-1345U	3,908	\$309.00*
Intel Core i7-13800H	3,902	\$457.00*
Intel Core i7-13650HX	3,897	\$485.00*
Intel Core i9-12950HX	3,880	\$590.00*
Apple M1 Ultra 20 Core	3,870	NA
Intel Core i9-12900H	3,869	\$617.00*
Intel Core i7-12800HX	3,856	\$457.00*

Apple M1 Max 10 Core 3200 MHz	3,847	NA
Intel Core i5-12600	3,836	\$207.89
 CPU Benchmarks ▼		
Apple M1 Pro 8 Core 3200 MHz	3,780	NA
Intel Core i5-12490F	3,760	\$181.99
Intel Core i7-1360P	3,753	\$480.00*
Intel Core i7-12650H	3,741	\$457.00*
Intel Core i7-12850HX	3,741	\$428.00*
Intel Core i5-12600HX	3,737	\$284.00*
Intel Core i5-13500T	3,735	\$232.00*
Intel Core i5-12500E	3,735	\$225.00*
Intel Core i9-12900HK	3,729	\$635.00*
Intel Core i3-13100	3,727	\$127.29
Apple M1 8 Core 3200 MHz	3,724	NA
Intel Core i3-13100F	3,722	\$119.99
Intel Core i5-12500	3,721	\$202.00*
Intel Core i7-1370P	3,714	NA
Intel Core i5-13400F	3,698	\$209.89
Intel Core i7-12700TE	3,681	\$344.00*
Intel Core i5-13500H	3,671	NA
Intel Core i7-12700T	3,654	\$339.00*
Intel Core i5-13400	3,652	\$239.99
Intel Core i7-12700H	3,649	\$457.00*
Intel Core i3-12300	3,624	\$143.00*
Intel Xeon W-1390P @ 3.50GHz	3,591	NA
Intel Core i7-13700H	3,586	\$502.00*
Intel Core i5-12600H	3,583	\$311.00*
Intel Core i5-12500T	3,575	\$202.00*
Intel Core i9-11900KF @ 3.50GHz	3,564	\$324.99
Intel Xeon W-1350P @ 4.00GHz	3,557	\$359.99
Intel Core i3-1210U	3,554	NA
Intel Core i5-12500H	3,548	\$311.00*
Intel Core i5-12400	3,548	\$192.00*
Intel Core i5-12400F	3,546	\$159.71
Intel Core i5-12450H	3,545	\$311.00*
Intel Xeon W-1370 @ 2.90GHz	3,538	\$469.99
Intel Xeon W-1370P @ 3.60GHz	3,533	\$499.99
Intel Core i9-11900K @ 3.50GHz	3,532	\$340.83
Intel Core i5-1250P	3,517	NA
Intel Xeon E-2388G @ 3.20GHz	3,511	\$539.00*
Intel Core i7-12800H	3,504	\$457.00*
AMD Ryzen 9 PRO 5945	3,498	NA
Intel Core i3-12100F	3,498	\$136.99
Intel Xeon W-1350 @ 3.30GHz	3,494	\$294.99
Intel Core i3-12100	3,489	\$122.00*
Intel Xeon E-2378G @ 2.80GHz	3,477	\$530.00*
AMD Ryzen 9 5900X	3,470	\$337.88

Intel Core i5-1340P	3,468	\$353.00*
Intel Core i5-12400T	3,454	\$169.99
<div>  CPU Benchmarks  </div>		
AMD Ryzen 9 5900	3,451	NA
Intel Core i9-11900 @ 2.50GHz	3,449	\$365.00
AMD Ryzen 7 5800X	3,447	\$213.63
AMD Ryzen 9 PRO 6950HS	3,444	NA
AMD Ryzen 7 7736U	3,444	NA
AMD Ryzen 5 PRO 5645	3,441	NA
AMD Ryzen 7 PRO 5845	3,440	NA
AMD Ryzen 9 6900HX	3,440	NA
Intel Core i3-1220P	3,439	\$281.00*
Intel Core i9-11900F @ 2.50GHz	3,435	\$411.99
Intel Core i7-11700K @ 3.60GHz	3,424	\$279.80
Intel Xeon W-1390 @ 2.80GHz	3,414	\$559.99
Intel Core i3-1215U	3,412	NA
AMD Ryzen 7 7735HS	3,410	NA
Intel Xeon E-2356G @ 3.20GHz	3,407	\$333.00*
Apple A14 Bionic	3,402	NA
Intel Core i7-11700KF @ 3.60GHz	3,401	\$269.98
AMD Ryzen 7 5800	3,400	NA
Intel Core i5-12500TE	3,385	\$205.00*
AMD Ryzen 7 5700X	3,384	\$187.99
Intel Core i7-1270P	3,381	NA
Intel Core i7-11700B @ 3.20GHz	3,374	NA
Intel Core i5-11600K @ 3.90GHz	3,368	\$197.50
AMD Ryzen 9 5980HX	3,366	NA
AMD Ryzen 9 6900HS Creator Edition	3,360	NA
Intel Core i5-11600KF @ 3.90GHz	3,360	\$219.95
AMD Ryzen 5 5600X	3,358	\$155.91
AMD Ryzen Threadripper PRO 5965WX	3,358	\$2,199.99
Intel Core i7-1255U	3,355	\$426.00*
Intel Core i7-1265U	3,354	\$426.00*
Intel Xeon W-11955M @ 2.60GHz	3,349	\$623.00*
Intel Core i9-11900KB @ 3.30GHz	3,348	\$539.00*
AMD Ryzen Threadripper PRO 5955WX	3,347	\$1,299.00
Intel Xeon E-2374G @ 3.70GHz	3,347	\$449.99
AMD Ryzen 7 5700GE	3,346	NA
Intel Core i3-12300T	3,345	\$157.00*
AMD Ryzen Threadripper PRO 5945WX	3,343	NA
Intel Core i3-12100TE	3,334	\$125.00*
Intel Core i7-1260P	3,332	NA
Intel Core i3-12100T	3,332	\$122.00*
Intel Core i5-12600T	3,327	NA
AMD Ryzen 7 PRO 5750G	3,325	NA
Intel Core i7-1280P	3,324	\$482.00*
AMD Ryzen 9 6900HS	3,321	NA

AMD Ryzen 5 PRO 6650H	3,318	NA
Intel Core i7-11700F @ 2.50GHz	3,318	\$245.97
 CPU Benchmarks ▼		
Intel Core i9-11980HK @ 2.60GHz	3,315	\$583.00*
Intel Core i9-11900T @ 1.50GHz	3,314	\$439.00*
Intel Core i7-12800HE	3,313	\$506.00*
AMD Ryzen 9 5900H	3,312	NA
Intel Core i5-1235U	3,311	\$309.00*
Intel Xeon W-11865MRE @ 2.60GHz	3,310	\$480.00*
AMD Ryzen Threadripper PRO 5975WX	3,306	\$3,199.99
AMD Ryzen 7 6800HS Creator Edition	3,303	NA
AMD Ryzen 7 PRO 5750GE	3,303	NA
Intel Xeon E-2378 @ 2.60GHz	3,298	\$386.00*
Intel Core i5-11600 @ 2.80GHz	3,297	\$245.95
AMD Ryzen 7 5700	3,295	NA
AMD Ryzen 7 5700G	3,284	\$178.00
Intel Core i5-1240P	3,283	NA
AMD Ryzen 7 6800H	3,279	NA
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 5 5600	3,255	\$139.79
AMD Ryzen 7 7730U	3,248	NA
AMD Ryzen 7 PRO 6850H	3,248	NA
Intel Xeon E-2334 @ 3.40GHz	3,244	\$299.99
AMD Ryzen 5 6600H	3,241	NA
Intel Core i9-11950H @ 2.60GHz	3,236	\$556.00*
AMD Ryzen 5 5600GE	3,232	NA
Intel Core i5-11500B @ 3.30GHz	3,231	NA
AMD Ryzen 9 PRO 6950H	3,230	NA
Intel Core i5-1240U	3,224	NA
AMD Ryzen 7 PRO 6850U	3,224	NA
Intel Xeon E-2324G @ 3.10GHz	3,223	\$279.99
AMD Ryzen 7 6800U	3,222	NA
AMD Ryzen 5 6600U	3,217	NA
AMD Ryzen 9 5900HX	3,212	NA
Intel Xeon E-2336 @ 2.90GHz	3,209	\$334.99
AMD Ryzen 7 5800X3D	3,208	\$316.98
AMD Ryzen 5 6600HS Creator Edition	3,198	NA
AMD Ryzen 7 PRO 6860Z	3,195	NA
AMD Ryzen 9 5900HS	3,194	NA
AMD Ryzen 3 PRO 7330U	3,194	NA
Intel Xeon W-1290P @ 3.70GHz	3,192	\$649.40*
AMD Ryzen 7 6800HS	3,191	NA
AMD Ryzen 5 5600G	3,187	\$128.53
AMD Ryzen 5 7530U	3,182	NA
AMD Ryzen 5 PRO 5650GE	3,179	NA

Intel Core i5-1245U	3,175	\$309.00*
Intel Core i9-11900H @ 2.50GHz	3,172	\$546.00*
 CPU Benchmarks ▼		
AMD Ryzen 9 5980HS	3,166	NA
Intel Core i7-11700 @ 2.50GHz	3,165	\$194.99
Intel Core i7-11850H @ 2.50GHz	3,158	\$395.00*
AMD Ryzen 5 PRO 6650U	3,155	NA
Intel Core i9-10900K @ 3.70GHz	3,150	\$346.99
Intel Core i5-11500 @ 2.70GHz	3,146	\$241.88
Intel Core i9-10900KF @ 3.70GHz	3,136	\$364.99
Intel Core i7-1365U	3,121	\$426.00*
Intel Core i7-11800H @ 2.30GHz	3,112	\$395.00*
Intel Pentium Gold 8505	3,108	NA
Intel Core i3-1215UE	3,104	\$313.00*
AMD Ryzen 3 PRO 5350GE	3,104	NA
AMD Ryzen 3 PRO 5350G	3,100	NA
AMD Ryzen 7 5800HS Creator Edition	3,100	NA
AMD Ryzen 3 5300GE	3,099	NA
Snapdragon 8 Gen2 Mobile Platform for Galaxy	3,093	NA
Intel Xeon W-1290 @ 3.20GHz	3,091	\$588.67*
Intel Core i9-10850K @ 3.60GHz	3,089	\$299.99
Intel Core i7-1250U	3,086	\$426.00*
Intel Core i7-1265UE	3,086	\$472.00*
Intel Core i7-1260U	3,085	NA
AMD Ryzen 7 5825U	3,085	NA
ARM - 8 Core 2424 MHz	3,083	NA
Intel Core i7-11375H @ 3.30GHz	3,077	\$482.00*
Intel Xeon W-1270P @ 3.80GHz	3,074	\$789.99
AMD EPYC 72F3	3,070	\$2,800.11
AMD Ryzen 7 5800H	3,069	NA
Intel Core i5-11500H @ 2.90GHz	3,067	\$250.00*
Intel Core i7-1195G7 @ 2.90GHz	3,067	\$426.00*
Intel Core i7-10700K @ 3.80GHz	3,066	\$259.99
AMD Ryzen 5 5500	3,063	\$98.00
Intel Core i9-10900F @ 2.80GHz	3,061	\$339.99
AMD Ryzen 7 5800HS	3,059	NA
AMD Ryzen 3 7330U	3,057	NA
AMD Ryzen 7 5800U	3,053	NA
Intel Core i7-10700KF @ 3.80GHz	3,051	\$244.32
Intel Core i9-10900 @ 2.80GHz	3,049	\$480.99
Intel Pentium Gold G7400	3,048	\$89.99
AMD Ryzen 7 PRO 5850U	3,046	NA
Intel Core i7-11600H @ 2.90GHz	3,046	\$395.00*
Intel Core i5-11400H @ 2.70GHz	3,045	\$250.00*
	3,043	
	3,041	
	3,034	

SecOps Tester

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