

# CPU Benchmarks

Over 1,000,000 CPUs Benchmarked

## New Desktop CPU Performance

This chart comparing performance of CPUs designed for desktop machines is made using thousands of PerformanceTest benchmark results and is updated daily.

### Notes:

- While we try to keep this chart mainly server and laptop CPU free, there might be some rogue processors in the list.
- The chart shows only CPUs that had their benchmark first submitted within the last 36 months. Older desktop CPUs may not appear.

CPU Mark	Price Performance	Sorted by Date
<h3>PassMark - CPU Mark</h3> <p>Desktop CPU Performance Updated 2nd of August 2023</p>		
CPU	CPU Mark	Price (USD)
AMD Ryzen Threadripper PRO 5955WX	88,039	\$5,699.99
AMD Ryzen Threadripper PRO 3995WX	83,439	\$6,866.00
AMD Ryzen Threadripper PRO 5975WX	76,143	\$2,699.99
AMD Ryzen Threadripper PRO 5965WX	66,539	\$1,999.99
AMD Ryzen 9 7950X	63,604	\$540.99
AMD Ryzen Threadripper PRO 3975WX	62,992	\$2,997.19
AMD Ryzen 9 7950X3D	62,924	\$661.08
Intel Core i9-13900KS	62,026	\$999.99
Intel Core i9-13900K	61,860	\$669.97
Intel Core i9-13900KF	61,360	\$546.49
Intel Core i9-13900F	63,195	\$526.03
AMD Ryzen 9 7900X	62,385	\$409.00
AMD Ryzen 9 7900X3D	60,918	\$561.05
AMD Ryzen Threadripper PRO 5955WX	49,659	\$1,099.99
Intel Core i9-13900	48,384	\$549.99
AMD Ryzen 9 7900	48,338	\$419.99
Apple M2 Ultra 24 Core	48,154	NA
Intel Core i7-13700K	46,825	\$407.99
Intel Core i7-13700KF	46,681	\$399.98
AMD Ryzen 9 5950X	45,903	\$441.71
Intel Core i9-12900KS	44,312	\$399.99
Intel Core i9-13900T	43,975	\$549.00*
Intel Core i9-12900K	41,667	\$352.99
Intel Core i9-12900KF	41,341	\$398.99
Intel Core i7-13700F	41,229	\$360.99
Apple M1 Ultra 20 Core	40,720	NA
AMD Ryzen Threadripper PRO 5945WX	40,757	NA
AMD Ryzen Threadripper PRO 3945WX	40,335	\$990.80
AMD Ryzen 9 5900X	38,298	\$299.99
Intel Core i7-13700	38,748	\$349.99
Intel Core i5-13600K	38,422	\$309.99
Intel Core i5-13600KF	38,304	\$292.99
Intel Core i9-12900F	37,263	\$425.00
AMD Ryzen 7 7700X	36,494	\$315.75
AMD Ryzen 7 7700	35,397	\$319.79
AMD Ryzen 7 7800X3D	34,907	\$439.00
Intel Core i7-12700K	34,776	\$409.00*
AMD Ryzen 9 PRO 5945	34,730	NA
Intel Core i9-12900	34,679	\$449.99
Intel Core i7-12700KF	34,562	\$276.00
AMD Ryzen 9 5900	34,516	NA
Intel Core i5-13600	33,864	\$255.00*
AMD Ryzen Threadripper PRO 3945WX	33,512	NA
Intel Core i5-13500	32,580	\$247.98
Intel Core i7-13700T	32,034	\$384.00*
Intel Xeon W-3265M @ 2.70GHz	32,025	\$6,353.00*
Intel Core i7-12700F	31,067	\$284.99
Intel Core i9-12900	31,068	\$325.49
Intel Core i9-12900T	30,998	\$489.00*
AMD Ryzen 5 7600X	28,874	\$218.00
Intel Core i7-12700E	28,292	\$344.00*
AMD Ryzen 7 5800X3D	28,215	\$289.55
AMD Ryzen 7 5800X	28,042	\$225.03
Intel Xeon W-2275 @ 3.30GHz	27,933	\$2,058.00*
AMD Ryzen 5 7600	27,825	\$219.99
AMD Ryzen 5 7600	27,787	\$199.99
Intel Core i5-13490F	27,675	\$263.66
Intel Core i5-12600KF	27,466	\$219.94
AMD Ryzen 7 5700X	26,816	\$184.99
AMD Ryzen 7 PRO 5845	26,305	NA
Intel Core i5-13600T	26,077	\$255.00*
Intel Xeon W-3323 @ 3.50GHz	25,875	\$949.00*
AMD Ryzen 7 5800	25,871	NA
Intel Core i5-13400F	25,757	\$164.99
Intel Core i5-13400	25,497	\$228.26
Intel Core i9-11900K @ 3.50GHz	25,458	\$318.90
Intel Xeon W-1390P @ 3.50GHz	25,451	NA
Intel Core i9-11900KF @ 3.50GHz	25,410	\$415.99
Intel Xeon W-1370P @ 3.60GHz	24,961	\$508.99
AMD Ryzen 7 5700G	24,879	\$167.86
Intel Core i7-11700K @ 3.60GHz	24,671	\$276.10
AMD Ryzen 7 PRO 5750G	24,527	NA
AMD Ryzen 7 5700	24,367	NA
Intel Core i7-11700KF @ 3.60GHz	24,090	\$262.99
Intel Xeon W-1370 @ 2.90GHz	23,908	\$468.99
Intel Core i5-13500T	23,080	\$232.00*
Intel Core i9-11900KB @ 3.30GHz	22,974	\$539.00*
Intel Core i9-11900 @ 2.50GHz	22,969	\$419.99
Intel Core i7-11700B @ 3.20GHz	22,910	NA
Intel Core i9-11900F @ 2.50GHz	22,774	\$418.99
Intel Core i9-10850K @ 3.60GHz	22,640	\$265.99
AMD Ryzen 7 5700GE	22,196	NA
AMD Ryzen 5 5600X3D	22,172	NA
Apple M1 Max 10 Core 3200 Mhz	22,081	NA
AMD Ryzen Threadripper 1920	22,066	NA
AMD Ryzen 7 PRO 5750GE	22,050	NA
AMD Ryzen 5 5600X	21,950	\$156.41
AMD Ryzen 5 PRO 5645	21,904	NA
Apple M1 Pro 10 Core 3200 Mhz	21,875	NA
Intel Core i7-12700T	21,845	\$339.00*
Intel Core i9-10910 @ 3.60GHz	21,750	NA
Apple M2 Pro 10 Core 3480 Mhz	21,666	NA
AMD Ryzen 5 5600	21,649	\$119.99
Intel Core i5-12600	21,434	\$260.00
Intel Core i7-11700F @ 2.50GHz	21,163	\$225.99
Intel Core i5-12490F	20,650	\$181.99
AMD Ryzen 7 4700G	20,252	\$235.12
Intel Core i7-11700 @ 2.50GHz	20,014	\$194.99
Intel Core i5-12500	20,010	\$202.00*
AMD Ryzen 5 5600G	19,930	\$121.80
AMD Ryzen 7 4700GE	19,898	NA
Intel Core i5-13400T	19,805	\$221.00*
Intel Core i5-11600K @ 3.90GHz	19,726	\$178.48
Intel Core i5-11600KF @ 3.90GHz	19,697	\$214.82
Intel Core i5-12400F	19,693	\$149.99
AMD Ryzen 5 5500	19,597	\$84.99
Intel Core i9-10900E @ 2.80GHz	19,562	\$444.00*
Intel Core i5-12400	19,506	\$192.00*
AMD Ryzen 5 PRO 5650G	19,424	NA
Intel Core i9-11900T @ 1.50GHz	18,879	\$439.00*
AMD Ryzen 5 5600GE	18,838	NA
AMD Ryzen 7 PRO 4750GE	18,500	NA
AMD Ryzen 5 PRO 5650GE	18,482	NA
Intel Core i5-11600 @ 2.80GHz	18,117	\$247.99
AMD 4700S	18,053	NA
Intel Core i5-11500B @ 3.30GHz	17,801	NA
Intel Core i5-12600T	17,472	NA
Intel Core i5-11500 @ 2.70GHz	17,461	\$208.50
Apple M1 Pro 8 Core 3200 Mhz	17,173	NA
Intel Core i5-11400F @ 2.60GHz	17,164	\$119.99
Intel Core i5-11400 @ 2.60GHz	17,093	\$139.40
Intel Core i5-12500T	16,817	\$202.00*
Intel Core i5-12400T	16,543	\$149.99
AMD Ryzen 5 PRO 4400G	16,254	NA
AMD Ryzen 5 4500	16,251	\$75.09
Intel Core i7-11700T @ 1.40GHz	16,174	\$323.00*
AMD Ryzen 5 4600GE	15,641	NA
AMD Ryzen 5 PRO 4650GE	15,610	NA
Apple M1 8 Core 3200 Mhz	15,345	NA
AMD Ryzen 5 PRO 4655G	15,276	NA
Intel Core i3-13100F	14,957	\$110.99
Intel Core i3-13100	14,945	\$128.67
Intel Core i5-11600T @ 1.70GHz	14,713	\$213.00*
Intel Core i3-12300	14,706	\$143.00*
Intel Xeon W-1250P @ 4.10GHz	14,440	\$321.50*
Intel Core i3-12100F	14,276	\$136.99
Apple M1 8 Core 3200 Mhz	14,084	NA
AMD Ryzen 3 PRO 5350G	13,860	NA
Intel Core i3-12100	13,856	\$122.00*
Intel Core i5-11400T @ 1.30GHz	13,534	\$182.00*
AMD Ryzen 3 PRO 5350GE	13,502	NA
Intel Core i5-11500T @ 1.50GHz	13,347	\$192.00*
AMD Ryzen 3 5300GE	13,321	NA
Intel Core i3-12300T	13,239	\$157.00*
Intel Core i3-13100T	13,120	\$134.00*
AMD Ryzen 3 5300G	12,899	NA
Intel Core i7-9700E @ 2.60GHz	12,898	\$323.00*
Intel Core i3-12100T	12,859	\$122.00*
Intel Core i5-10505 @ 3.20GHz	12,198	NA
Intel Core i3-11100B @ 3.60GHz	11,357	NA
AMD Ryzen 3 PRO 4200G	11,315	NA
AMD Ryzen 3 4300GE	11,229	NA
Intel Core i5-10600T @ 2.40GHz	11,210	\$213.00*
AMD Ryzen 3 4100	11,089	\$64.99
AMD Ryzen 3 PRO 4355GE	10,559	NA
Intel Core i3-10325 @ 3.90GHz	10,354	\$190.10*
Intel Core i3-10320 @ 3.80GHz	10,063	\$139.99
Intel Core i5-10400T @ 2.00GHz	9,957	\$182.00*
Intel Core i3-10305 @ 3.80GHz	9,108	\$167.11
AMD Ryzen 5 3350G	9,048	NA
Intel Core i3-10105F @ 3.70GHz	9,032	\$74.00
Intel Core i3-10100F @ 3.60GHz	8,806	\$69.50
Intel Core i3-10105 @ 3.70GHz	8,674	\$104.70
Intel Core i3-10100E @ 3.20GHz	8,229	\$125.00*
Intel Core i3-10305T @ 3.00GHz	8,136	\$143.00*
Intel Core i3-10300T @ 3.00GHz	8,073	\$193.97*
Intel Core i3-10105T @ 3.00GHz	8,007	\$122.00*
AMD Athlon Gold 3150G	7,112	NA
Intel Pentium Gold G7400	6,797	\$89.99
Intel Pentium Gold G7400T	5,673	\$64.00*
Intel Core i5-4470S @ 3.00GHz	4,742	NA
Intel Pentium Gold G6900	4,533	\$79.90
Intel Pentium Gold G6605 @ 4.30GHz	4,429	\$145.08*
Intel Pentium Gold G6505 @ 4.20GHz	4,378	\$75.00*
Intel Pentium Gold G6600 @ 4.20GHz	4,338	\$239.90
AMD Athlon 320GE	4,282	NA
Intel Pentium Gold G6405 @ 4.10GHz	4,257	\$71.90
Intel Celeron N5095A @ 2.00GHz	4,208	NA
Intel Pentium Gold G6500 @ 4.10GHz	4,170	\$87.99
Intel Celeron N5095 @ 2.00GHz	4,123	NA
Intel Pentium Gold G6500T @ 3.50GHz	4,005	\$75.00*
Intel Celeron G6900T	4,003	\$42.00*
Intel Pentium Gold G6405T @ 3.50GHz	3,746	\$64.00*
Intel Pentium Gold G6505T @ 3.60GHz	3,698	\$90.00*
Intel Pentium Gold G6500T @ 3.30GHz	3,601	NA
Intel Pentium Gold G6400T @ 3.40GHz	3,588	\$64.00*
Intel Celeron G5905 @ 3.50GHz	2,791	\$28.89
Intel Celeron G5925 @ 3.60GHz	2,727	\$44.99*
Intel Celeron G4950 @ 3.30GHz	2,714	\$119.99*
Intel Celeron G5900T @ 3.20GHz	2,620	\$42.00*
AMD Athlon II X4 557	2,567	NA
Intel Celeron G5920 @ 3.50GHz	2,482	\$39.91
AMD Athlon X4 730	2,278	NA
Intel Celeron J3455E @ 1.50GHz	2,193	NA
AMD A8-7690K	2,157	NA
Intel Celeron G5905T @ 3.30GHz	2,070	\$42.00*
AMD Athlon X4 530	1,786	NA
AMD Athlon X2 450	1,295	NA
Intel Core i5-4470 @ 3.30GHz	1,180	NA