

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.

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

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CPU Mark

Price Performance

Sorted by Date

PassMark - CPU Mark

Desktop CPU Performance

Updated 23rd of August 2023

CPU	CPU Mark	Price (USD)
AMD Ryzen Threadripper PRO 5995WX	98,215	\$5,699.99
AMD Ryzen Threadripper PRO 3995WX	83,558	\$6,866.00
AMD Ryzen Threadripper PRO 5975WX	76,199	\$2,699.99
AMD Ryzen Threadripper PRO 5965WX	66,640	\$1,999.99
AMD Ryzen 9 7950X	63,430	\$540.99
AMD Ryzen Threadripper PRO 3975WX	62,992	\$2,997.19
AMD Ryzen 9 7950X3D	62,694	\$661.08
Intel Core i9-13900KS	62,055	\$999.99
Intel Core i9-13900K	59,810	\$569.97
Intel Core i9-13900KF	59,223	\$546.49
Intel Core i9-13900F	53,550	\$526.03
AMD Ryzen 9 7900X	52,324	\$409.00
AMD Ryzen 9 7900X3D	50,887	\$561.05
AMD Ryzen Threadripper PRO 5955WX	49,546	\$1,099.99
AMD Ryzen 9 7900	49,331	\$419.99
Intel Core i9-13900	49,187	\$549.99
Apple M2 Ultra 24 Core	48,308	NA
Intel Core i7-13700K	46,899	\$407.99
Intel Core i7-13700KF	46,698	\$390.98
Intel Core i7-13790F	46,065	NA
AMD Ryzen 9 5950X	45,876	\$441.71
Intel Core i9-12900KS	44,297	\$399.99
Intel Core i9-13900T	44,056	\$549.00*
Intel Core i9-12900K	41,564	\$352.99
Intel Core i9-12900KF	41,332	\$398.99

<div>☆</div> <div>Common</div>	Apple M1 Ultra 20 Core	40,920	NA
	AMD Ryzen Threadripper PRO 5945WX	40,743	NA
	Intel Core i7-13700F	40,741	\$360.99
<div>Most Benchmarked</div>	AMD Ryzen Threadripper PRO 3955WX	40,394	\$990.80
	AMD Ryzen 9 5900X	39,287	\$299.99
	Intel Core i7-13700	38,783	\$349.99
<div>AMD vs Intel Market Share</div> <div>Year on Year Performance</div>	Intel Core i5-13600K	38,397	\$309.99
	Intel Core i5-13600KF	38,267	\$292.99
	Intel Core i9-12900F	37,154	\$425.00
	AMD Ryzen 7 7700X	36,435	\$315.75
	AMD Ryzen 7 7700	35,253	\$319.79
	AMD Ryzen 7 7800X3D	34,834	\$439.00
	Intel Core i7-12700K	34,763	\$409.00*
	AMD Ryzen 9 PRO 5945	34,730	NA
	Intel Core i9-12900	34,624	\$449.99
	AMD Ryzen 9 5900	34,540	NA
	Intel Core i7-12700KF	34,539	\$276.00
	AMD Ryzen Threadripper PRO 3945WX	33,503	NA
	Intel Core i5-13600	33,424	\$255.00*
	Intel Core i5-13500	32,517	\$247.98
	Intel Xeon W-3265M @ 2.70GHz	32,025	\$6,353.00*
	Intel Core i7-13700T	31,657	\$384.00*
	Intel Core i7-12700F	31,032	\$284.99
	Intel Core i7-12700	31,009	\$325.49
	Intel Core i9-12900T	30,774	\$489.00*
	AMD Ryzen 5 7600X	28,854	\$218.00
	Intel Core i7-12700E	28,292	\$344.00*
	AMD Ryzen 7 5800X3D	28,213	\$289.55
	AMD Ryzen 7 5800X	28,030	\$225.03
	Intel Xeon W-2275 @ 3.30GHz	27,945	\$2,058.00*
	Intel Core i5-12600K	27,799	\$199.99
	AMD Ryzen 5 7600	27,714	\$219.99
	Intel Core i5-13490F	27,675	\$263.66
	Intel Core i5-12600KF	27,482	\$219.94
	AMD Ryzen 7 5700X	26,813	\$184.99
	Intel Core i5-13600T	26,631	\$255.00*
	AMD Ryzen 7 PRO 5845	26,305	NA
	AMD Ryzen 7 5800	25,879	NA
	Intel Xeon W-3323 @ 3.50GHz	25,875	\$949.00*
	Intel Core i5-13400F	25,689	\$164.99
	Intel Core i5-13400	25,468	\$228.26
	Intel Xeon W-1390P @ 3.50GHz	25,451	NA
	Intel Core i9-11900K @ 3.50GHz	25,440	\$318.90
	Intel Core i9-11900KF @ 3.50GHz	25,399	\$415.99
	Intel Xeon W-1370P @ 3.60GHz	24,961	\$508.99
	AMD Ryzen 7 5700G	24,680	\$167.86
	Intel Core i7-11700K @ 3.60GHz	24,669	\$276.10
	AMD Ryzen 7 PRO 5750G	24,534	NA
	AMD Ryzen 7 5700	24,375	NA
	Intel Core i5-13500T	24,276	\$232.00*
	Intel Core i7-11700KF @ 3.60GHz	24,090	\$262.99
	Intel Xeon W-1370 @ 2.90GHz	23,908	\$468.99
	Intel Core i9-11900 @ 2.50GHz	23,002	\$419.99
	Intel Core i9-11900KB @ 3.30GHz	22,974	\$539.00*

Intel Core i7-11700B @ 3.20GHz	22,910	NA
Intel Core i9-11900F @ 2.50GHz	22,756	\$418.99
AMD Ryzen 7 5700GE	22,196	NA
Apple M1 Max 10 Core 3200 MHz	22,080	NA
AMD Ryzen Threadripper 1920	22,066	NA
AMD Ryzen 7 PRO 5750GE	22,042	NA
AMD Ryzen 5 5600X3D	22,002	NA
AMD Ryzen 5 5600X	21,944	\$156.41
AMD Ryzen 5 PRO 5645	21,904	NA
Apple M1 Pro 10 Core 3200 MHz	21,870	NA
Intel Core i9-10910 @ 3.60GHz	21,751	NA
Intel Core i7-12700T	21,680	\$339.00*
AMD Ryzen 5 5600	21,647	\$119.99
Apple M2 Pro 10 Core 3480 MHz	21,641	NA
Intel Core i5-12600	21,420	\$260.00
Intel Core i7-11700F @ 2.50GHz	21,159	\$225.99
Intel Core i5-12490F	20,650	\$181.99
AMD Ryzen 7 4700G	20,252	\$235.12
Intel Core i7-11700 @ 2.50GHz	20,009	\$194.99
Intel Core i5-12500	20,008	\$202.00*
AMD Ryzen 5 PRO 5650G	19,956	NA
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	19,717	\$178.48
Intel Core i5-11600KF @ 3.90GHz	19,708	\$214.82
Intel Core i5-12400F	19,674	\$149.99
AMD Ryzen 5 5500	19,577	\$84.99
Intel Core i9-10900E @ 2.80GHz	19,562	\$444.00*
Intel Core i5-12400	19,492	\$192.00*
Intel Core i9-11900T @ 1.50GHz	18,879	\$439.00*
AMD Ryzen 5 5600GE	18,828	NA
AMD Ryzen 7 PRO 4750GE	18,509	NA
AMD Ryzen 5 PRO 5650GE	18,472	NA
Intel Core i5-11600 @ 2.80GHz	18,117	\$247.99
AMD 4700S	18,063	NA
Intel Core i5-11500B @ 3.30GHz	17,801	NA
Intel Core i5-12600T	17,472	NA
Intel Core i5-11500 @ 2.70GHz	17,467	\$208.50
Apple M1 Pro 8 Core 3200 MHz	17,169	NA
Intel Core i5-11400F @ 2.60GHz	17,155	\$119.99
Intel Core i5-11400 @ 2.60GHz	17,095	\$139.40
Intel Core i5-12500T	16,815	\$202.00*
Intel Core i5-12400T	16,418	\$149.99
Intel Core i7-11700T @ 1.40GHz	16,367	\$323.00*
AMD Ryzen 5 PRO 4400G	16,354	NA
AMD Ryzen 5 4500	16,221	\$75.09
AMD Ryzen 5 4600GE	15,641	NA
AMD Ryzen 5 PRO 4650GE	15,616	NA
Apple M2 8 Core 3500 MHz	15,345	NA
AMD Ryzen 5 PRO 4655G	15,276	NA
Intel Core i3-13100	14,948	\$128.67
Intel Core i3-13100F	14,897	\$110.99
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	14,265	\$136.99
Apple M1 8 Core 3200 MHz	14,074	NA
Intel Core i3-12100	13,855	\$122.00*
Intel Core i5-11400T @ 1.30GHz	13,549	\$182.00*
AMD Ryzen 3 PRO 5350G	13,516	NA
AMD Ryzen 3 PRO 5350GE	13,460	NA
AMD Ryzen 3 5300GE	13,321	NA
Intel Core i3-12300T	13,239	\$157.00*
Intel Core i3-13100T	13,173	\$134.00*
Intel Core i5-11500T @ 1.50GHz	13,063	\$192.00*
AMD Ryzen 3 5300G	12,897	NA
Intel Core i7-9700E @ 2.60GHz	12,881	\$323.00*
Intel Core i3-12100T	12,859	\$122.00*
Intel Core i5-10505 @ 3.20GHz	12,225	NA
Intel Core i3-11100B @ 3.60GHz	11,357	NA
AMD Ryzen 3 PRO 4200G	11,315	NA
AMD Ryzen 3 4300GE	11,234	NA
Intel Core i5-10600T @ 2.40GHz	11,210	\$213.00*
AMD Ryzen 3 4100	11,087	\$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	9,966	\$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	9,035	\$74.00
Intel Core i3-10100F @ 3.60GHz	8,806	\$69.50
Intel Core i3-10105 @ 3.70GHz	8,672	\$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	8,024	\$122.00*
AMD Athlon Gold 3150G	7,112	NA
Intel Pentium Gold G7400	6,786	\$89.99
Intel Pentium Gold G7400T	5,673	\$64.00*
Intel Core i5-4470S @ 3.00GHz	4,742	NA
Intel Celeron G6900	4,541	\$79.90
Intel Pentium Gold G6605 @ 4.30GHz	4,446	\$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	4,301	NA
Intel Pentium Gold G6405 @ 4.10GHz	4,257	\$71.90
Intel Celeron N5095A @ 2.00GHz	4,211	NA
Intel Pentium Gold G6500 @ 4.10GHz	4,170	\$87.99
Intel Celeron N5095 @ 2.00GHz	4,126	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 G5600T @ 3.30GHz	3,601	NA

Intel Pentium Gold G6400T @ 3.40GHz	3,588	\$64.00*
Intel Celeron G5905 @ 3.50GHz	2,794	\$28.89
Intel Celeron G5925 @ 3.60GHz	2,727	\$44.87
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

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