

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

 CPU Mega List

Search Model

CPU Mark

Price Performance

Sorted by Date

PassMark - CPU Mark

Desktop CPU Performance

Updated 22nd of March 2022

CPU	CPU Mark	Price (USD)
AMD Ryzen Threadripper PRO 5995WX	108,822	NA
AMD Ryzen Threadripper PRO 3995WX	85,192	\$6,705.99
AMD Ryzen Threadripper 3990X	81,299	\$6,999.99
AMD Ryzen Threadripper PRO 5975WX	80,933	NA
AMD Ryzen Threadripper PRO 5965WX	68,405	NA
AMD Ryzen Threadripper 3970X	64,068	\$3,100.00
AMD Ryzen Threadripper PRO 3975WX	63,107	\$4,598.00
AMD Ryzen Threadripper 3960X	54,729	\$1,755.99
AMD Ryzen Threadripper PRO 5955WX	51,656	NA
AMD Ryzen 9 5950X	46,210	\$589.99
AMD Ryzen Threadripper PRO 5945WX	41,578	NA
Intel Core i9-12900KF	40,933	\$579.49
Intel Core i9-12900K	40,869	\$613.96
AMD Ryzen Threadripper PRO 3955WX	40,173	\$1,988.00
Intel Xeon W-3265M @ 2.70GHz	39,765	\$6,353.00*
Intel Core i9-12900	39,749	\$499.99
AMD Ryzen 9 5900X	39,481	\$448.98
AMD Ryzen 9 3950X	39,165	\$819.99
Intel Xeon W-3175X @ 3.10GHz	37,167	\$3,099.00
Intel Core i9-12900T	35,833	\$489.00*



Compare



CPU Benchmarks



Benchmarked



AMD vs Intel
Market Share

Year on Year
Performance

Intel Core i9-12900F	35,651	\$672.99
AMD Ryzen 9 5900	34,976	NA
Intel Core i7-12700K	33,889	\$409.00*
Intel Core i9-10980XE @ 3.00GHz	33,625	\$1,042.00
AMD Ryzen Threadripper PRO 3945WX	33,433	NA
AMD Ryzen 9 3900XT	32,873	\$692.03
AMD Ryzen 9 3900X	32,771	\$509.96
Intel Core i7-12700F	31,593	\$312.96
Intel Core i7-12700	31,454	\$389.98
AMD Ryzen 9 PRO 3900	31,372	NA
AMD Ryzen 9 3900	30,685	\$634.00*
Intel Core i9-9990XE @ 4.00GHz	30,162	\$2,163.00*
Intel Core i9-10940X @ 3.30GHz	28,666	\$770.58
AMD Ryzen 7 5800X	28,396	\$349.99
Intel Xeon W-2275 @ 3.30GHz	27,933	\$1,112.00*
Intel Core i5-12600KF	27,226	\$269.88
Intel Core i5-12600K	27,182	\$278.98
Intel Core i9-10920X @ 3.50GHz	26,810	\$679.99
Intel Xeon W-1390P @ 3.50GHz	26,031	NA
Intel Xeon W-3323 @ 3.50GHz	25,875	\$949.00*
Intel Core i9-11900K @ 3.50GHz	25,571	\$440.99
Intel Core i9-11900KF @ 3.50GHz	25,547	\$379.00
AMD Ryzen 7 5800	25,542	NA
Intel Xeon W-1370P @ 3.60GHz	25,202	\$415.99
AMD Ryzen 7 PRO 5750G	25,143	NA
Intel Core i7-11700K @ 3.60GHz	24,852	\$339.00
AMD Ryzen 7 5700G	24,565	\$299.00
Intel Xeon W-1370 @ 2.90GHz	24,511	\$344.99
Intel Core i7-11700KF @ 3.60GHz	24,289	\$315.99
Intel Core i9-11900F @ 2.50GHz	23,958	\$409.99
AMD Ryzen 7 3800XT	23,825	\$374.99
Intel Core i9-10900K @ 3.70GHz	23,802	\$389.98
Intel Core i9-10900KF @ 3.70GHz	23,567	\$399.99
Apple M1 Pro 10 Core 3200 MHz	23,553	NA
Apple M1 Max 10 Core 3200 MHz	23,468	NA
AMD Ryzen 7 3800X	23,284	\$333.99
Intel Core i9-11900 @ 2.50GHz	23,231	\$409.99
Intel Core i9-10850K @ 3.60GHz	23,129	\$359.98
Intel Core i9-11900KB @ 3.30GHz	23,070	\$539.00*
Intel Core i9-10900X @ 3.70GHz	22,733	\$489.99
AMD Ryzen 7 3700X	22,725	\$348.95
AMD Ryzen 7 PRO 3700	22,624	\$329.99*
AMD Ryzen 7 5700GE	22,566	NA
AMD Ryzen 7 PRO 5750GE	22,494	NA
AMD Ryzen 5 5600X	22,109	\$228.99
AMD Ryzen Threadripper 1920	22,066	NA
Intel Xeon W-2255 @ 3.70GHz	21,923	\$778.00*
Intel Core i7-11700B @ 3.20GHz	21,665	NA

Intel Core i9-10910 @ 3.60GHz	21,529	NA
Intel Core i7-11700F @ 2.50GHz	21,503	\$299.50
Intel Core i7-11700F @ 2.50GHz	21,503	\$299.50
AMD Ryzen 7 PRO 4700G	20,848	NA
Intel Core i7-11700 @ 2.50GHz	20,836	\$323.98
AMD Ryzen 5 PRO 5650G	20,764	NA
Intel Core i9-10900E @ 2.80GHz	20,658	\$444.00*
AMD Ryzen 7 PRO 4750G	20,603	\$319.99
Intel Core i9-10900 @ 2.80GHz	20,520	\$399.98
Intel Core i9-11900T @ 1.50GHz	20,458	\$439.00*
AMD Ryzen 7 4700GE	20,414	NA
Intel Core i5-12500	20,371	\$202.00*
AMD Ryzen 7 4700G	20,138	\$319.00*
Intel Core i5-12400	19,882	\$192.00*
Intel Core i5-11600K @ 3.90GHz	19,869	\$195.00
AMD Ryzen 5 5600G	19,844	\$219.00
Intel Core i5-11600KF @ 3.90GHz	19,774	\$209.99
Intel Core i5-12400F	19,684	\$179.98
Intel Core i9-9900KS @ 4.00GHz	19,509	\$898.56
Intel Core i7-10700K @ 3.80GHz	19,316	\$328.99
Intel Core i7-10700KF @ 3.80GHz	19,151	\$309.99
AMD Ryzen 5 5600GE	18,879	NA
AMD Ryzen 5 PRO 5650GE	18,840	NA
AMD Ryzen 5 3600XT	18,795	\$418.90
Intel Core i9-9900KF @ 3.60GHz	18,711	\$542.00
AMD Ryzen 7 PRO 4750GE	18,531	NA
Intel Core i5-11600 @ 2.80GHz	18,324	\$229.99
AMD Ryzen 5 3600X	18,293	\$221.19
AMD 4700S	18,225	NA
Apple M1 Pro 8 Core 3200 MHz	18,190	NA
AMD Ryzen 5 PRO 3600	17,900	NA
AMD Ryzen 5 3600	17,825	\$215.00
Intel Core i5-11500B @ 3.30GHz	17,783	NA
Intel Core i5-11500 @ 2.70GHz	17,625	\$208.98
Intel Core i5-11400F @ 2.60GHz	17,322	\$164.99
Intel Core i5-11400 @ 2.60GHz	17,137	\$174.21
Intel Core i7-10700 @ 2.90GHz	17,033	\$284.99
Intel Core i7-10700F @ 2.90GHz	16,951	\$254.06
Intel Core i9-9900 @ 3.10GHz	16,924	\$444.99
AMD Ryzen 5 PRO 4400G	16,456	NA
AMD Ryzen 5 PRO 4650G	16,443	\$257.36*
AMD Ryzen 5 PRO 4650GE	15,680	NA
AMD Ryzen 5 4600GE	15,656	NA
AMD Ryzen 5 4600G	15,564	NA
Intel Core i5-11600T @ 1.70GHz	15,254	\$213.00*
Intel Core i7-11700T @ 1.40GHz	15,220	\$323.00*
Intel Core i9-10900T @ 1.90GHz	15,133	\$439.00*
Apple M1 8 Core 3200 MHz	15,109	NA
Intel Core i3-12300	14,954	\$143.00*

 CPU Benchmarks

Intel Xeon W-1250P @ 4.10GHz	14,924	\$596.66*
Intel Core i3-12100	14,660	\$122.00*
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Intel Core i5-10600K @ 4.10GHz	14,554	\$274.24
Intel Core i7-9700KF @ 3.60GHz	14,507	\$490.00
AMD Ryzen 3 PRO 5350G	14,025	NA
Intel Core i5-10600 @ 3.30GHz	14,022	\$228.00
Intel Core i9-9900T @ 2.10GHz	13,947	\$439.00*
AMD Ryzen 3 5300GE	13,843	NA
AMD Ryzen 3 PRO 5350GE	13,707	NA
Intel Core i7-9700F @ 3.00GHz	13,435	\$316.99
Intel Core i5-11500T @ 1.50GHz	13,401	\$192.00*
Intel Core i7-9700 @ 3.00GHz	13,394	\$312.20
Intel Core i5-11400T @ 1.30GHz	13,367	\$182.00*
AMD Ryzen 5 3500X	13,348	\$189.93
Intel Core i7-10700T @ 2.00GHz	13,265	\$684.00*
AMD Ryzen 3 5300G	13,133	NA
Intel Core i5-10500 @ 3.10GHz	13,035	\$209.88
AMD Ryzen 5 3500	12,836	NA
AMD Ryzen 3 3300X	12,760	\$299.99
Intel Core i5-10505 @ 3.20GHz	12,469	NA
Intel Core i5-10400F @ 2.90GHz	12,438	\$129.00
Intel Core i5-10400 @ 2.90GHz	12,318	\$153.21
Intel Core i7-9700E @ 2.60GHz	11,905	\$323.00*
Intel Core i5-10600T @ 2.40GHz	11,801	\$213.00*
AMD Ryzen 3 3100	11,669	\$198.81
Intel Core i3-11100B @ 3.60GHz	11,357	NA
AMD Ryzen 3 4300GE	11,351	NA
AMD Ryzen 3 PRO 4200G	11,315	NA
AMD Ryzen 3 PRO 4350GE	11,285	NA
Intel Core i5-9600KF @ 3.70GHz	10,835	\$160.11
AMD Ryzen 3 PRO 4350G	10,831	NA
Intel Core i7-9700TE @ 1.80GHz	10,826	\$323.00*
AMD Ryzen 3 4300G	10,778	NA
Intel Core i7-9700T @ 2.00GHz	10,699	\$323.00*
Intel Core i3-10325 @ 3.90GHz	10,429	\$154.00*
Intel Core i5-10500T @ 2.30GHz	10,424	\$192.00*
Intel Core i5-9600 @ 3.10GHz	10,354	\$225.98
Intel Core i5-9500F @ 3.00GHz	10,330	\$184.99
Intel Core i3-10320 @ 3.80GHz	10,132	\$139.70
Intel Core i5-10400T @ 2.00GHz	10,032	\$182.00*
Intel Core i5-9500 @ 3.00GHz	9,815	\$213.71
Intel Core i3-10305 @ 3.80GHz	9,689	\$173.84
AMD Ryzen 5 3350GE	9,684	NA
AMD Ryzen 5 PRO 3350GE	9,643	NA
AMD Ryzen 5 PRO 3350G	9,498	NA
AMD Ryzen 5 3400G	9,334	\$349.99
Intel Core i3-10300 @ 3.70GHz	9,329	\$140.99
AMD Ryzen 5 PRO 3400G	9,317	NA