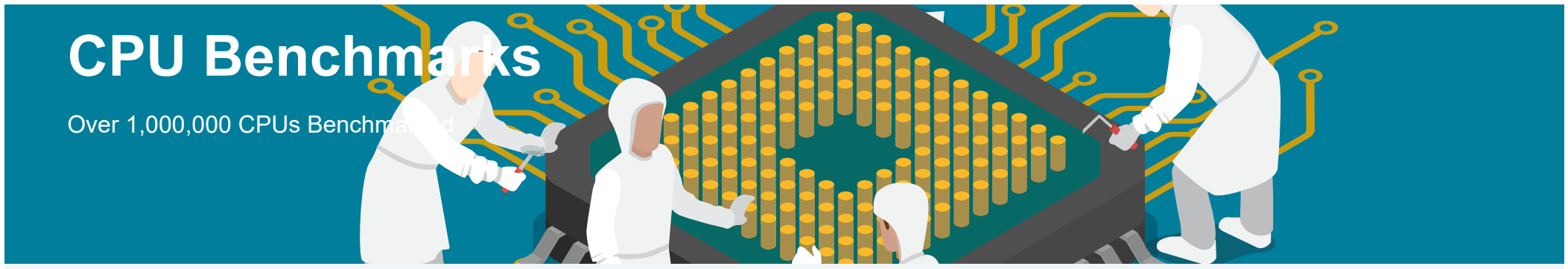
CPU Benchmarks



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 10th of August 2022

CPU	CPU Mark	Price (USD)
AMD Ryzen Threadripper PRO 5995WX	100,012	$6,499.00*
AMD Ryzen Threadripper PRO 3995WX	83,241	$7,341.35
AMD Ryzen Threadripper 3990X	81,431	$7,514.00
AMD Ryzen Threadripper PRO 5975WX	79,463	$3,299.00
AMD Ryzen Threadripper PRO 5965WX	67,986	$2,673.65
AMD Ryzen Threadripper 3970X	63,744	$1,999.99
AMD Ryzen Threadripper PRO 3975WX	63,043	$4,077.00
AMD Ryzen Threadripper 3960X	54,782	$1,355.00
AMD Ryzen Threadripper PRO 5955WX	50,623	NA
AMD Ryzen 9 5950X	45,870	$546.74
Intel Core i9-12900KS	44,794	$734.98
Intel Core i9-12900K	41,413	$559.99
Intel Core i9-12900KF	41,368	$548.99
Apple M1 Ultra 20 Core	41,175	NA
AMD Ryzen Threadripper PRO 5945WX	40,888	NA
AMD Ryzen Threadripper PRO 3955WX	40,122	$1,600.00
Intel Xeon W-3265M @ 2.70GHz	39,618	$6,353.00*
AMD Ryzen 9 5900X	39,338	$359.99
AMD Ryzen 9 3950X	39,064	$695.00
Intel Core i9-12900	36,876	$508.99

Compare

Intel Core i9-12900F	36,373	$505.99
AMD Ryzen 9 5900	34,789	NA

CPU Benchmarks

Benchmarked

AMD vs Intel Market Share

Year on Year Performance

Intel Core i7-12700KF	34,292	$377.99
Intel Core i9-12900T	33,728	$489.00*
AMD Ryzen Threadripper PRO 3945WX	33,355	NA
Intel Core i9-10980XE @ 3.00GHz	33,278	$910.99
AMD Ryzen 9 3900XT	32,964	$468.98
Intel Core i7-12700F	31,635	$312.96
AMD Ryzen 9 PRO 3900	31,407	NA
Intel Core i7-12700	31,329	$342.98
AMD Ryzen 9 3900	30,690	$501.00
Intel Core i9-9990XE @ 4.00GHz	30,162	$2,163.00*
Intel Core i9-10940X @ 3.30GHz	28,448	$726.19
AMD Ryzen 7 5800X	28,159	$307.99
Intel Xeon W-2275 @ 3.30GHz	27,889	$1,112.00*
Intel Core i5-12600K	27,622	$278.95
AMD Ryzen 7 5800X3D	27,534	$438.99
Intel Core i5-12600KF	27,022	$259.99
Intel Core i9-10920X @ 3.50GHz	26,550	$674.89
AMD Ryzen 7 5700X	26,529	$240.00
Intel Xeon W-1390P @ 3.50GHz	25,927	NA
Intel Xeon W-3323 @ 3.50GHz	25,875	$949.00*
AMD Ryzen 7 5800	25,870	NA
Intel Core i9-11900K @ 3.50GHz	25,507	$391.99
Intel Core i9-11900KF @ 3.50GHz	25,366	$374.99
Intel Xeon W-1370P @ 3.60GHz	25,202	$450.55
AMD Ryzen 7 PRO 5750G	24,977	NA
Intel Core i7-11700K @ 3.60GHz	24,685	$304.00
AMD Ryzen 7 5700G	24,567	$220.00
Intel Core i7-11700KF @ 3.60GHz	24,090	$298.98
Intel Xeon W-1370 @ 2.90GHz	23,908	$377.99
AMD Ryzen 7 3800XT	23,769	$309.99
Intel Core i9-10900K @ 3.70GHz	23,651	$388.99
Intel Core i9-10900KF @ 3.70GHz	23,383	$329.99
Intel Core i9-11900F @ 2.50GHz	23,107	$400.99
AMD Ryzen 7 PRO 3700	23,051	$329.99*
Intel Core i9-11900 @ 2.50GHz	23,006	$312.99
Intel Core i9-10850K @ 3.60GHz	22,966	$349.98
Intel Core i7-12700T	22,912	$339.00*
Intel Core i9-11900KB @ 3.30GHz	22,695	$539.00*
Intel Core i9-10900X @ 3.70GHz	22,662	$540.00
Intel Core i7-11700B @ 3.20GHz	22,627	NA
AMD Ryzen 7 5700GE	22,484	NA
Apple M1 Max 10 Core 3200 MHz	22,331	NA
AMD Ryzen 7 PRO 5750GE	22,261	NA
Intel Xeon W-2255 @ 3.70GHz	22,259	$778.00*
Apple M1 Pro 10 Core 3200 MHz	22,141	NA
AMD Ryzen Threadripper 1920	22,066	NA

AMD Ryzen 5 5600X	21,997	$199.98
Intel Core i9-10910 @ 3.60GHz	21,822	NA

CPU Benchmarks

Intel Core i5-12600	20,926	$229.98
AMD Ryzen 7 PRO 4700G	20,848	NA
Intel Core i9-10900F @ 2.80GHz	20,744	$358.99
Intel Core i9-10900E @ 2.80GHz	20,658	$444.00*
AMD Ryzen 7 PRO 4750G	20,574	$254.99
AMD Ryzen 7 4700GE	20,416	NA
Intel Core i5-12500	20,408	$202.00*
Intel Core i9-10900 @ 2.80GHz	20,362	$375.17
AMD Ryzen 5 PRO 5650G	20,266	NA
AMD Ryzen 7 4700G	20,223	$238.16*
Intel Core i5-12490F	20,177	$177.76
Intel Core i7-11700 @ 2.50GHz	20,078	$313.97
Intel Core i9-11900T @ 1.50GHz	20,036	$439.00*
AMD Ryzen 5 5600G	19,829	$159.99
Intel Core i5-12400F	19,826	$179.99
Intel Core i5-11600K @ 3.90GHz	19,731	$224.89
Intel Core i5-11600KF @ 3.90GHz	19,690	$209.98
Intel Core i9-9900KS @ 4.00GHz	19,549	$894.88
Intel Core i5-12400	19,542	$192.00*
AMD Ryzen 5 5500	19,489	$138.16
Intel Core i7-10700K @ 3.80GHz	19,218	$314.01
Intel Core i7-10700KF @ 3.80GHz	19,046	$289.96
AMD Ryzen 5 5600GE	18,879	NA
AMD Ryzen 5 3600XT	18,753	$414.96
AMD Ryzen 5 PRO 5650GE	18,618	NA
AMD Ryzen 7 PRO 4750GE	18,470	NA
AMD 4700S	18,263	NA
Intel Core i5-11600 @ 2.80GHz	18,237	$249.99
Intel Core i5-12500T	17,844	$202.00*
Intel Core i5-11500B @ 3.30GHz	17,801	NA
Intel Core i5-11500 @ 2.70GHz	17,634	$192.19
Apple M1 Pro 8 Core 3200 MHz	17,315	NA
Intel Core i5-11400F @ 2.60GHz	17,211	$149.98
Intel Core i5-11400 @ 2.60GHz	17,084	$154.46
Intel Core i7-10700F @ 2.90GHz	17,027	$249.97
Intel Core i7-10700 @ 2.90GHz	16,838	$258.65
AMD Ryzen 5 PRO 4400G	16,456	NA
AMD Ryzen 5 PRO 4650G	16,362	$219.97
Intel Core i5-12600T	16,154	NA
AMD Ryzen 5 4500	15,799	$123.55
AMD Ryzen 5 PRO 4650GE	15,694	NA
AMD Ryzen 5 4600GE	15,656	NA
AMD Ryzen 5 4600G	15,615	$128.00
Intel Core i7-11700T @ 1.40GHz	15,386	$323.00*
Intel Core i5-11600T @ 1.70GHz	15,352	$213.00*
Intel Core i9-10900T @ 1.90GHz	15,209	$219.99*

Apple M2 8 Core 3500 MHz	15,085	NA
Intel Core i3-12300	14,955	$143.00*

CPU Benchmarks

Intel Core i5-10600KF @ 4.10GHz	14,528	$179.99
Intel Core i5-10600K @ 4.10GHz	14,524	$199.00
Intel Core i3-12100	14,476	$122.00*
Intel Xeon W-1250P @ 4.10GHz	14,476	$321.50*
Intel Core i3-12100F	14,379	$109.99
Intel Core i9-9900T @ 2.10GHz	14,085	$439.00*
AMD Ryzen 3 PRO 5350G	13,976	NA
Intel Core i5-10600 @ 3.30GHz	13,847	$219.98
AMD Ryzen 3 PRO 5350GE	13,685	NA
AMD Ryzen 3 5300GE	13,636	NA
Intel Core i5-11500T @ 1.50GHz	13,397	$192.00*
AMD Ryzen 5 3500X	13,304	$126.98
Intel Core i7-10700T @ 2.00GHz	13,243	$447.99*
Intel Core i5-11400T @ 1.30GHz	13,112	$182.00*
Intel Core i5-10500 @ 3.10GHz	13,031	$212.89
AMD Ryzen 3 5300G	12,955	NA
AMD Ryzen 5 3500	12,847	NA
Intel Core i3-12100T	12,840	$122.00*
Intel Core i7-9700E @ 2.60GHz	12,751	$323.00*
AMD Ryzen 3 3300X	12,700	$250.00
Intel Core i5-10400F @ 2.90GHz	12,396	$123.90
Intel Core i5-10505 @ 3.20GHz	12,313	NA
Intel Core i5-10400 @ 2.90GHz	12,305	$159.00
AMD Ryzen 3 3100	11,651	$145.95
Intel Core i3-11100B @ 3.60GHz	11,357	NA
AMD Ryzen 3 PRO 4200G	11,315	NA
AMD Ryzen 3 4300GE	11,306	NA
AMD Ryzen 3 4100	11,276	$112.99
Intel Core i5-10600T @ 2.40GHz	11,210	$213.00*
AMD Ryzen 3 PRO 4350GE	11,090	NA
AMD Ryzen 3 PRO 4350G	10,877	NA
Intel Core i7-9700TE @ 1.80GHz	10,826	$323.00*
AMD Ryzen 3 4300G	10,756	NA
Intel Core i5-9600 @ 3.10GHz	10,345	$249.99
Intel Core i5-10500T @ 2.30GHz	10,312	$192.00*
Intel Core i3-10325 @ 3.90GHz	10,308	$190.10*
Intel Core i3-10320 @ 3.80GHz	10,027	$124.88
Intel Core i5-10400T @ 2.00GHz	9,960	$182.00*
Intel Core i3-10305 @ 3.80GHz	9,689	$159.99
AMD Ryzen 5 PRO 3350GE	9,643	NA
AMD Ryzen 5 PRO 3350G	9,442	NA
AMD Ryzen 5 3350GE	9,343	NA
AMD Ryzen 5 PRO 3400G	9,303	NA
Intel Core i3-10300 @ 3.70GHz	9,153	$114.99
AMD Ryzen 5 3350G	9,113	NA
Intel Core i7-9850HL @ 1.90GHz	9,112	$395.00*

Intel Core i3-10105F @ 3.70GHz	9,109	$77.99
AMD Ryzen 5 3400GE	8,985	NA

CPU Benchmarks

Intel Core i3-10100 @ 3.60GHz	8,775	$110.99
Intel Core i5-10300H @ 2.50GHz	8,645	$250.00*
Intel Core i5-9600T @ 2.30GHz	8,464	$213.00*
AMD Ryzen 5 PRO 3400GE	8,265	NA
Intel Core i3-10100E @ 3.20GHz	8,229	$125.00*
AMD Ryzen Embedded V1756B	8,215	NA
Intel Core i3-10305T @ 3.00GHz	8,136	$143.00*
Intel Core i3-10300T @ 3.00GHz	8,119	$177.67
Intel Core i3-10105T @ 3.00GHz	7,850	$122.00*
AMD Athlon Gold PRO 3150G	7,702	NA
Intel Core i3-9350K @ 4.00GHz	7,694	$293.22*
Intel Core i3-9320 @ 3.70GHz	7,358	$215.67
AMD Ryzen 3 3200GE	7,317	NA
AMD Athlon Gold 3150G	7,093	NA
AMD Athlon Gold PRO 3150GE	7,068	NA
AMD Ryzen 3 PRO 3200G	6,952	NA
Intel Pentium Gold G7400	6,804	$71.95
AMD Ryzen Embedded V1404I	6,241	NA
Intel Pentium Gold G7400T	5,883	$64.00*
Intel Core i5-4470S @ 3.00GHz	4,742	NA
AMD Athlon Silver PRO 3125GE	4,633	NA
Intel Celeron N5095A @ 2.00GHz	4,627	NA
Intel Pentium Gold G6605 @ 4.30GHz	4,513	$112.98
AMD Athlon 3000G	4,482	$79.99
AMD Athlon PRO 300GE	4,475	NA
Intel Pentium Gold G6600 @ 4.20GHz	4,396	$107.58
Intel Pentium Gold G6505 @ 4.20GHz	4,378	$75.00*
AMD Athlon 300GE	4,301	NA
AMD Athlon 320GE	4,300	NA
Intel Pentium Gold G6405 @ 4.10GHz	4,294	$51.99
AMD Ryzen Embedded R1606G	4,166	NA
Intel Pentium Gold G5600F @ 3.90GHz	4,160	$89.99
Intel Pentium Gold G6500 @ 4.10GHz	4,147	$96.99
Intel Pentium Gold G6400 @ 4.00GHz	4,134	$68.99
Intel Pentium Gold G5620 @ 4.00GHz	4,102	$125.00
Intel Celeron G6900T	4,024	$42.00*
Intel Celeron N5095 @ 2.00GHz	4,014	NA
Intel Pentium Gold G6500T @ 3.50GHz	4,005	$75.00*
Intel Pentium Gold G6405T @ 3.50GHz	3,746	$64.00*
Intel Celeron G6900	3,612	$39.99
Intel Pentium Gold G5600T @ 3.30GHz	3,601	NA
Intel Pentium Gold G6400T @ 3.40GHz	3,586	$64.00*

Intel Pentium Gold G5420T @ 3.20GHz	3,508	$64.00*
Intel Pentium Silver J5040 @		

CPU Benchmarks

Intel Celeron G5925 @ 3.60GHz	2,939	$37.98
Intel Celeron G5905 @ 3.50GHz	2,815	$44.00
Intel Celeron G4950 @ 3.30GHz	2,714	$1,008.65*
Intel Celeron J4115 @ 1.80GHz	2,709	NA
Intel Celeron G5900 @ 3.40GHz	2,672	$57.99
Intel Celeron G5900T @ 3.20GHz	2,648	$42.00*
Intel Celeron G4930 @ 3.20GHz	2,571	$52.99
AMD Athlon II X4 557	2,567	NA
Intel Celeron G5920 @ 3.50GHz	2,482	$76.99
Intel Celeron G5905T @ 3.30GHz	2,310	$42.00*
Intel Celeron G4930T @ 3.00GHz	2,250	$42.00*
Intel Celeron J3455E @ 1.50GHz	2,139	NA
Intel Core2 Extreme Q9200 @ 2.40GHz	2,011	NA
AMD Athlon X4 730	1,936	NA
AMD Athlon X4 530	1,786	NA
Intel Celeron J4025 @ 2.00GHz	1,722	NA
Intel Pentium G2120T @ 2.70GHz	1,613	NA
AMD Athlon X2 450	1,295	NA
AMD R-272F APU	1,215	NA

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