

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
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 25%;"> <p> CPUS</p> <hr/> <p> High End</p> <p>High Mid Range</p> <p>Low Mid Range</p> <p>Low End</p> <hr/> <p> Best Value (On Market)</p> <p>Best Value XY Scatter</p> <p>Best Value (All time)</p> <hr/> <p> New Desktop</p> <p>New Laptop</p> <hr/> <p> Single Thread</p> <p>Systems with Multiple CPUs</p> <p>Overclocked</p> <p>Power Performance</p> <p>CPU Mark by Socket Type</p> <p>Cross-Platform CPU Performance</p> <hr/> <p> CPU Mega List</p> <p>Search Model</p> <hr/> <p> Compare ⁰</p> </div> <div style="width: 50%; text-align: center;"> <h2>PassMark - CPU Mark</h2> <p>Desktop CPU Performance</p> <p>Updated 11th of August 2021</p> </div> <div style="width: 20%;"></div> </div>			
CPU	CPU Mark		Price (USD)
AMD Ryzen Threadripper PRO 3995WX	85,506		\$5,484.99
AMD Ryzen Threadripper 3990X	81,075		\$4,222.22*
AMD Ryzen Threadripper 3970X	64,107		\$2,510.20
AMD Ryzen Threadripper PRO 3975WX	62,939		\$2,698.99
AMD Ryzen Threadripper 3960X	55,008		\$1,399.99
AMD Ryzen 9 5950X	46,139		\$829.00
AMD Ryzen Threadripper PRO 3955WX	40,226		\$1,148.99
AMD Ryzen 9 5900X	39,549		\$569.99
AMD Ryzen 9 3950X	39,195		\$1,290.04
Intel Xeon W-3175X @ 3.10GHz	36,360		\$3,126.99
AMD Ryzen 9 5900	35,598		NA
Intel Core i9-10980XE @ 3.00GHz	33,856		\$989.99
AMD Ryzen Threadripper PRO 3945WX	33,830		NA
AMD Ryzen 9 3900XT	32,928		\$692.88
AMD Ryzen 9 3900X	32,873		\$614.99
Intel Core i9-9980XE @ 3.00GHz	32,424		\$1,169.99*
AMD Ryzen Threadripper 2990WX	32,260		\$1,795.27
AMD Ryzen 9 PRO 3900	31,510		NA
Intel Core i9-9960X @ 3.10GHz	31,281		\$1,299.99
AMD Ryzen Threadripper 2950X	30,919		\$1,097.99
AMD Ryzen 9 3900	30,888		\$591.00*
Intel Core i9-9990XE @ 4.00GHz	30,162		NA
AMD Ryzen Threadripper 2970WX	29,530		\$729.95



Common

Most
BenchmarkedAMD vs Intel
Market ShareYear on Year
Performance

Intel Core i9-10940X @ 3.30GHz	29,125	\$799.99
AMD Ryzen 7 5800X	28,496	\$395.00
Intel Core i9-9940X @ 3.30GHz	28,356	\$629.99
Intel Xeon W-2275 @ 3.30GHz	27,348	\$1,112.00*
AMD Ryzen Threadripper 2990X	26,469	NA
Intel Core i9-10920X @ 3.50GHz	26,422	\$967.00
AMD Ryzen 7 5800	26,184	NA
AMD Ryzen 7 PRO 5750G	25,562	NA
Intel Core i9-11900K @ 3.50GHz	25,554	\$549.99
AMD Ryzen Threadripper 2920X	25,540	\$679.99
Intel Core i9-9920X @ 3.50GHz	25,350	\$794.99*
Intel Xeon W-1370P @ 3.60GHz	25,324	\$428.00*
Intel Core i9-11900KF @ 3.50GHz	25,318	\$629.99
Intel Core i7-11700K @ 3.60GHz	25,080	\$493.12
Intel Core i9-11900KB @ 3.30GHz	24,523	\$539.00*
Intel Core i7-11700KF @ 3.60GHz	24,139	\$450.99
Intel Core i9-10900K @ 3.70GHz	23,945	\$831.98
AMD Ryzen 7 3800XT	23,917	\$399.95
AMD Ryzen 7 5700G	23,915	NA
Intel Core i9-10900KF @ 3.70GHz	23,803	\$469.99
Intel Core i9-11900F @ 2.50GHz	23,562	\$499.98
Intel Core i9-11900 @ 2.50GHz	23,535	\$514.98
Intel Core i9-10850K @ 3.60GHz	23,334	\$448.61
AMD Ryzen 7 3800X	23,325	\$438.63
Intel Core i9-10900X @ 3.70GHz	22,791	\$669.99
AMD Ryzen 7 3700X	22,788	\$503.98
Intel Xeon W-2255 @ 3.70GHz	22,680	\$778.00*
AMD Ryzen 7 PRO 3700	22,570	\$329.99*
AMD Ryzen 7 5700GE	22,566	NA
AMD Ryzen 7 PRO 5750GE	22,536	NA
AMD Ryzen 5 5600X	22,158	\$295.00
Intel Core i9-9900X @ 3.50GHz	21,678	\$1,155.29
Intel Core i7-11700F @ 2.50GHz	21,613	\$319.99
Intel Core i9-11900T @ 1.50GHz	21,553	\$439.00*
Intel Core i7-11700 @ 2.50GHz	21,306	\$379.99
Intel Core i9-10910 @ 3.60GHz	21,160	NA
AMD Ryzen 5 PRO 5650G	21,087	NA
Intel Core i9-10900F @ 2.80GHz	20,895	\$391.87
AMD Ryzen 7 PRO 4700G	20,848	NA
Intel Core i9-10900 @ 2.80GHz	20,793	\$379.99
AMD Ryzen 7 4700GE	20,648	NA
AMD Ryzen 7 PRO 4750G	20,617	\$399.99*
Intel Core i9-9820X @ 3.30GHz	20,524	\$679.99*
Intel Core i5-11600KF @ 3.90GHz	20,088	\$289.99
AMD Ryzen 5 5600G	20,019	NA
Intel Core i5-11600K @ 3.90GHz	20,016	\$287.68
AMD Ryzen 7 4700G	19,895	NA
Intel Core i9-9900KS @ 4.00GHz	19,594	\$816.87
AMD Ryzen 7 PRO 4750GE	19,584	NA

Intel Core i7-10700K @ 3.80GHz	19,466	\$374.48
AMD Ryzen 5 PRO 5650GE	19,266	NA
Intel Core i7-10700KF @ 3.80GHz	19,238	\$321.16
AMD Ryzen 5 5600GE	18,879	NA
Intel Core i9-9900K @ 3.60GHz	18,838	\$459.00
AMD Ryzen 5 3600XT	18,830	\$284.11
Intel Core i9-9900KF @ 3.60GHz	18,823	\$379.95
Intel Core i7-9800X @ 3.80GHz	18,376	\$599.99
Intel Core i5-11600 @ 2.80GHz	18,322	\$344.90
AMD Ryzen 5 3600X	18,316	\$458.67*
AMD 4700S	18,045	NA
AMD Ryzen 5 PRO 3600	18,037	NA
Intel Core i5-11500 @ 2.70GHz	17,885	\$273.99
AMD Ryzen 5 3600	17,859	\$467.91
Intel Core i5-11400F @ 2.60GHz	17,841	\$326.27
Intel Core i5-11400 @ 2.60GHz	17,520	\$500.99
Intel Core i7-10700 @ 2.90GHz	17,266	\$378.27
Intel Core i9-9900 @ 3.10GHz	17,100	\$387.81
Intel Core i7-10700F @ 2.90GHz	17,008	\$299.99
AMD Ryzen 5 PRO 4650G	16,488	\$369.99*
AMD Ryzen 5 PRO 4400G	16,456	NA
AMD Ryzen 5 4600GE	16,377	NA
AMD Ryzen 5 PRO 4650GE	15,906	NA
AMD Ryzen 5 4600G	15,743	NA
Intel Core i9-10900T @ 1.90GHz	15,402	\$439.00*
Apple M1 8 Core 3200 MHz	15,143	NA
AMD Ryzen 7 PRO 2700	15,062	NA
AMD Ryzen 7 2700E	14,657	NA
Intel Core i7-9700KF @ 3.60GHz	14,638	\$368.28
Intel Xeon W-1250P @ 4.10GHz	14,632	\$374.40
Intel Core i5-10600KF @ 4.10GHz	14,609	\$208.41
Intel Core i5-10600K @ 4.10GHz	14,552	\$254.41
Intel Core i7-9700K @ 3.60GHz	14,547	\$312.00
AMD Ryzen 3 PRO 5350G	14,025	NA
Intel Core i9-9900T @ 2.10GHz	13,993	\$439.00*
Intel Core i5-10600 @ 3.30GHz	13,962	\$253.17
AMD Ryzen 3 5300G	13,932	NA
AMD Ryzen 3 5300GE	13,843	NA
AMD Ryzen 3 PRO 5350GE	13,707	NA
Intel Core i7-9700F @ 3.00GHz	13,538	\$299.16
Intel Core i7-9700 @ 3.00GHz	13,481	\$295.99
Intel Core i5-11400T @ 1.30GHz	13,367	\$182.00*
AMD Ryzen 5 3500X	13,366	\$173.19
Intel Core i5-10500 @ 3.10GHz	13,248	\$301.58
Intel Core i7-10700T @ 2.00GHz	13,231	\$319.00*
AMD Ryzen 5 3500	12,899	NA
AMD Ryzen 3 3300X	12,753	\$351.00*
Intel Core i5-10400F @ 2.90GHz	12,463	\$177.99
Intel Core i5-10400 @ 2.90GHz	12,402	\$260.64
Intel Core i5-10600T @ 2.40GHz	11,871	\$213.00*

Intel Core i7-9700E @ 2.60GHz	11,869	\$323.00*
Intel Core i5-10505 @ 3.20GHz	11,853	NA
AMD Ryzen 3 3100	11,719	\$276.25*
AMD Ryzen 3 4300GE	11,588	NA
AMD Ryzen 3 PRO 4350GE	11,420	NA
AMD Ryzen 3 PRO 4200G	11,315	NA
AMD Ryzen 3 4300G	11,102	NA
AMD Ryzen 3 PRO 4350G	10,889	NA
Intel Core i5-9600KF @ 3.70GHz	10,841	\$206.65
Intel Core i5-9600K @ 3.70GHz	10,818	\$236.43
Intel Core i7-9700TE @ 1.80GHz	10,722	\$323.00*
Intel Core i5-10500T @ 2.30GHz	10,705	\$192.00*
Intel Core i5-9600 @ 3.10GHz	10,622	\$381.87
Intel Core i7-9700T @ 2.00GHz	10,616	\$323.00*
Intel Core i5-9500F @ 3.00GHz	10,285	\$229.99
Intel Core i5-10400T @ 2.00GHz	10,133	\$182.00*
Intel Core i3-10320 @ 3.80GHz	10,127	\$185.17
Intel Core i5-9500 @ 3.00GHz	9,739	\$249.99
Intel Core i3-10305 @ 3.80GHz	9,689	\$219.99
AMD Ryzen 5 3350GE	9,684	NA
AMD Ryzen 5 PRO 3350GE	9,643	NA
AMD Ryzen 5 PRO 3350G	9,570	NA
Intel Core i5-9400F @ 2.90GHz	9,548	\$247.50
AMD Ryzen 5 2500X	9,517	NA
Intel Core i5-9400 @ 2.90GHz	9,498	\$340.00
AMD Ryzen 5 PRO 3400G	9,403	NA
AMD Ryzen 5 3400G	9,361	\$242.99
Intel Core i3-10300 @ 3.70GHz	9,344	\$177.64
Intel Core i5-9600T @ 2.30GHz	9,167	\$213.00*
Intel Core i7-9850HL @ 1.90GHz	9,112	\$395.00*
Intel Core i3-10105F @ 3.70GHz	9,108	\$122.29
AMD Ryzen 5 3350G	9,036	NA
Intel Core i3-10105 @ 3.70GHz	9,007	\$139.99
AMD Ryzen 5 3400GE	8,940	NA
Intel Core i3-10100 @ 3.60GHz	8,823	\$187.99
Intel Core i5-10300H @ 2.50GHz	8,780	\$250.00*
Intel Core i3-10100F @ 3.60GHz	8,777	\$108.34
Intel Core i3-10300T @ 3.00GHz	8,247	\$143.00*
AMD Ryzen Embedded V1756B	8,215	NA
AMD Ryzen 5 PRO 3400GE	8,192	NA
Intel Core i5-9500T @ 2.20GHz	8,178	\$192.00*
Intel Core i3-10305T @ 3.00GHz	8,136	\$143.00*
Intel Core i3-9350K @ 4.00GHz	7,760	\$293.22*
Intel Core i5-9400T @ 1.80GHz	7,714	\$182.00*
AMD Athlon Gold PRO 3150G	7,702	NA
Intel Core i3-10105T @ 3.00GHz	7,661	\$122.00*
Intel Core i3-9350KF @ 4.00GHz	7,520	\$219.99
AMD Ryzen 3 2300X	7,498	\$178.09*
AMD Ryzen 3 3200GE	7,434	NA
Intel Core i3-9320 @ 3.70GHz	7,358	\$219.99

Intel Core i3-9300 @ 3.70GHz	7,279	\$209.99
AMD Athlon Gold PRO 3150GE	7,231	NA
AMD Ryzen 3 3200G	7,223	\$209.98
AMD Ryzen 3 PRO 3200G	7,073	NA
Intel Core i3-9100F @ 3.60GHz	6,777	\$167.56
Intel Core i3-9100 @ 3.60GHz	6,634	\$223.00
Intel Core i3-9300T @ 3.20GHz	5,927	\$143.00*
Intel Core i3-9100T @ 3.10GHz	5,660	\$122.00*
AMD Ryzen Embedded V1404I	5,491	NA
AMD Athlon 300GE	4,905	NA
Intel Core i5-4470S @ 3.00GHz	4,742	NA
AMD Athlon Silver PRO 3125GE	4,633	NA
Intel Pentium Gold G6605 @ 4.30GHz	4,539	\$86.00*
AMD Athlon 240GE	4,538	\$221.00*
AMD Athlon PRO 300GE	4,484	NA
AMD Athlon 3000G	4,457	\$54.99*
Intel Pentium Gold G6600 @ 4.20GHz	4,396	\$149.99
AMD Ryzen Embedded R1606G	4,390	NA
Intel Pentium Gold G6505 @ 4.20GHz	4,378	\$75.00*
AMD Ryzen 3 PRO 2100GE	4,308	NA
Intel Pentium Gold G6405 @ 4.10GHz	4,279	\$64.00*
Intel Pentium Gold G6500 @ 4.10GHz	4,191	\$109.95
AMD Athlon 200GE	4,165	\$77.86*
Intel Pentium Gold G5600F @ 3.90GHz	4,160	NA
Intel Pentium Gold G6400 @ 4.00GHz	4,152	\$108.41
Intel Pentium Gold G5620 @ 4.00GHz	4,102	\$159.99
Intel Pentium Gold G6500T @ 3.50GHz	4,005	\$75.00*
Intel Pentium Gold G6405T @ 3.50GHz	3,746	\$64.00*
Intel Pentium Gold G5420T @ 3.20GHz	3,716	\$64.00*
Intel Pentium Silver J5040 @ 2.00GHz	3,646	NA
Intel Pentium Gold G6400T @ 3.40GHz	3,610	\$64.00*
Intel Pentium Gold G5420 @ 3.80GHz	3,520	\$212.40
Intel Celeron J4125 @ 2.00GHz	3,034	NA
Intel Celeron G5925 @ 3.60GHz	2,873	\$70.22
Intel Celeron G5905 @ 3.50GHz	2,846	\$54.48
Intel Celeron G5920 @ 3.50GHz	2,807	\$65.99
Intel Celeron G5900 @ 3.40GHz	2,768	\$99.01
Intel Celeron J4115 @ 1.80GHz	2,719	NA
Intel Celeron G4950 @ 3.30GHz	2,714	\$89.99*
Intel Celeron G4930 @ 3.20GHz	2,575	\$129.99
AMD Athlon II X4 557	2,567	NA
Intel Celeron G5905T @ 3.30GHz	2,309	\$42.00*
Intel Celeron J3455E @ 1.50GHz	2,256	NA
Intel Celeron G4930T @ 3.00GHz	2,224	\$42.00*
Intel Celeron G3930TE @ 2.70GHz	2,218	\$42.00*
Intel Celeron G3930T @ 2.70GHz	2,109	\$99.88

Intel Core2 Extreme Q9200 @ 2.40GHz	2,011	NA
AMD A6-7480	1,925	\$43.99*
AMD A6-9500E	1,841	\$74.99
AMD Athlon X4 530	1,786	NA
Intel Pentium G2120T @ 2.70GHz	1,613	NA
Intel Celeron J4025 @ 2.00GHz	1,520	NA
AMD Sempron 240	1,278	\$36.10*
AMD R-272F APU	1,215	NA
AMD E2-9030	922	NA

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