

CPU Benchmarks


Over 1,000,000 CPUs Benchmarked


New Laptop CPU Performance

This chart comparing performance of CPUs designed for laptop and portable machines is made using thousands of [PerformanceTest](#) benchmark results and is updated daily.

Notes:

- While we try to keep this chart mainly desktop CPU free, there might be some desktop processors in the list. This is because the classification of a laptop CPU is determined at result submission time by the user of PerformanceTest. Some users incorrectly clicked the "Laptop" check box.
- The chart shows only CPUs that had their benchmark first submitted within the last 36 months. Older laptop 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

Laptop & Portable CPU Performance

Updated 5th of November 2020

CPU	CPU Mark	Price (USD)
AMD Ryzen 9 4900HS	19,877	NA
AMD Ryzen 7 4800H	19,229	NA
AMD Ryzen 9 4900H	19,172	NA
AMD Ryzen 7 4800HS	19,039	NA
AMD Ryzen 7 Extreme Edition	18,284	NA
Intel Xeon W-10885M @ 2.40GHz	17,321	\$623.00*
Intel Core i9-10980HK @ 2.40GHz	17,259	\$583.00*
AMD Ryzen 7 4800U	17,179	NA
Intel Core i7-10870H @ 2.20GHz	16,608	\$417.00*
Intel Core i7-10875H @ 2.30GHz	16,039	\$450.00*
Intel Core i9-10885H @ 2.40GHz	15,632	\$556.00*
AMD Ryzen 7 PRO 4750U	15,621	NA
Intel Xeon E-2286M @ 2.40GHz	15,617	\$623.00*
Intel Core i9-9980HK @ 2.40GHz	15,258	\$583.00*
Intel Core i9-10880H @ 2.30GHz	15,137	NA
AMD Ryzen 5 4600H	14,916	NA
AMD Ryzen 5 4600HS	14,582	NA
AMD Ryzen 5 4600U	14,429	NA
Intel Core i9-9880H @ 2.30GHz	14,123	\$556.00*
Intel Xeon W-10855M @ 2.80GHz	13,912	\$450.00*
AMD Ryzen 7 4700U	13,820	NA
Intel Core i7-10850H @ 2.70GHz	13,178	\$395.00*



Compare⁰



CPU Benchmarks



Most
Benchmarked



AMD vs Intel
Market Share

Year on Year

Performance

AMD Ryzen 5 PRO 4650U	12,999	NA
Intel Xeon E-2276M @ 2.80GHz	12,331	\$450.00*
AMD Ryzen 5 PRO 4500U	12,049	NA
Intel Core i7-1185G7 @ 3.00GHz	11,901	\$426.00*
Intel Core i7-9750HF @ 2.60GHz	11,770	\$395.00*
Intel Core i7-9850H @ 2.60GHz	11,739	\$395.00*
Intel Core i7-1165G7 @ 2.80GHz	11,612	\$426.00*
Intel Xeon E-2186M @ 2.90GHz	11,578	\$623.00*
Intel Core i7-9750H @ 2.60GHz	11,375	\$395.00*
AMD Ryzen 5 4500U	11,271	NA
Intel Core i9-8950HK @ 2.90GHz	10,813	\$583.00*
Intel Xeon E-2176M @ 2.70GHz	10,753	\$450.00*
Intel Core i7-1068NG7 @ 2.30GHz	10,689	\$426.00*
Intel Core i7-9700TE @ 1.80GHz	10,680	\$323.00*
Intel Core i7-8850H @ 2.60GHz	10,389	\$395.00*
Intel Core i7-8750H @ 2.20GHz	10,209	\$395.00*
Intel Core i7-10710U @ 1.10GHz	10,116	\$595.96
AMD Ryzen 3 PRO 4450U	10,078	NA
Intel Core i5-1038NG7 @ 2.00GHz	9,907	\$320.00*
Intel Core i5-9400F @ 2.90GHz	9,599	\$139.99
Intel Core i5-8500B @ 3.00GHz	9,538	\$192.00*
Intel Core i7-8569U @ 2.80GHz	9,251	\$431.00*
Intel Core i5-9500TE @ 2.20GHz	9,212	\$192.00*
Intel Core i5-10400H @ 2.60GHz	9,186	\$250.00*
Intel Core i7-9850HL @ 1.90GHz	9,112	\$395.00*
Intel Core i7-10810U @ 1.10GHz	9,066	\$443.00*
Intel Core i7-1065G7 @ 1.30GHz	8,977	\$426.00*
Intel Core i5-10300H @ 2.50GHz	8,865	\$250.00*
Intel Core i7-8559U @ 2.70GHz	8,815	\$789.98
Intel Core i7-8809G @ 3.10GHz	8,790	NA
Intel Core i5-1035G7 @ 1.20GHz	8,441	\$320.00*
AMD Ryzen 7 3750H	8,428	NA
Intel Core i5-8259U @ 2.30GHz	8,288	\$549.00
Intel Core i5-1035G4 @ 1.10GHz	8,250	\$309.00*
Intel Core i5-8257U @ 1.40GHz	8,227	\$320.00*
Intel Core i5-9400H @ 2.50GHz	8,195	\$250.00*
AMD Ryzen 5 3550H	8,155	NA
Intel Core i5-8400H @ 2.50GHz	8,146	\$250.00*
Intel Core i7-8706G @ 3.10GHz	8,136	NA
AMD Ryzen Embedded V1807B	8,095	NA
AMD Ryzen 5 3580U	8,065	NA
Intel Core i7-8705G @ 3.10GHz	7,996	\$1,535.11*
Intel Core i5-1035G1 @ 1.00GHz	7,995	\$297.00*
Intel Core i5-9300H @ 2.40GHz	7,982	\$250.00*
Intel Core i7-8709G @ 3.10GHz	7,921	NA
Intel Core i5-8279U @ 2.40GHz	7,917	\$320.00*
Intel Core i5-9300HF @ 2.40GHz	7,857	\$250.00*

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Intel Core i7-8557U @ 1.70GHz	7,820	\$431.00*
Intel Core i5-1135G7 @ 2.40GHz	7,778	\$309.00*
AMD Ryzen 5 5600H	7,755	NA
Intel Core i5-8260U @ 1.60GHz	7,630	\$297.00*
Intel Core i3-10100T @ 3.00GHz	7,552	\$122.00*
Intel Core i5-8300H @ 2.30GHz	7,539	\$250.00*
AMD Ryzen 5 2600H	7,537	NA
AMD Ryzen 7 PRO 3700U	7,385	NA
AMD Ryzen 7 3700U	7,330	NA
Intel Core i7-10610U @ 1.80GHz	7,326	\$409.00*
AMD Ryzen 7 3780U	7,203	NA
AMD Ryzen 7 PRO 2700U	7,181	NA
AMD Ryzen 5 3500U	7,153	NA
AMD Ryzen 3 PRO 3200GE	7,113	NA
Intel Core i5-8305G @ 2.80GHz	7,073	NA
Intel Core i7-7820EQ @ 3.00GHz	7,059	\$378.00*
Intel Core i7-10510U @ 1.80GHz	7,043	\$409.00*
Intel Core i7-5850EQ @ 2.70GHz	7,036	\$435.00*
AMD Ryzen 5 PRO 3500U	6,929	NA
Intel Core i5-10310U @ 1.70GHz	6,877	\$297.00*
Intel Core i3-8100B @ 3.60GHz	6,829	\$133.00*
AMD Ryzen Embedded V1605B	6,812	NA
AMD Ryzen 5 2500U	6,643	NA
AMD Ryzen 7 2700U	6,617	NA
Intel Xeon E3-1268L v5 @ 2.40GHz	6,600	\$456.54*
Intel Core i7-8665U @ 1.90GHz	6,598	\$651.19
Intel Core i7-8665UE @ 1.70GHz	6,587	\$409.00*
Intel Core i5-10210U @ 1.60GHz	6,535	\$529.00
AMD Ryzen 5 PRO 2500U	6,502	NA
Intel Core i7-8565U @ 1.80GHz	6,438	NA
Intel Core i5-8350U @ 1.70GHz	6,424	\$297.00*
Intel Core i5-8365U @ 1.60GHz	6,365	\$584.99
Intel Core i7-1060NG7 @ 1.20GHz	6,234	NA
Intel Core i5-8265U @ 1.60GHz	6,228	\$749.00*
Intel Core i7-8565UC @ 1.80GHz	6,187	NA
AMD Ryzen 3 PRO 3300U	6,007	NA
Intel Core i5-8265UC @ 1.60GHz	5,988	NA
AMD Ryzen 3 PRO 2300U	5,964	NA
AMD Ryzen 3 3300U	5,857	NA
Intel Core i7-10510Y @ 1.20GHz	5,523	\$403.00*
AMD Ryzen 3 2300U	5,345	NA
Intel Core i5-1030NG7 @ 1.10GHz	5,331	NA
Intel Core i5-8365UE @ 1.60GHz	5,243	\$297.00*
Intel Core i3-1005G1 @ 1.20GHz	5,241	\$281.00*
Intel Core i5-10210Y @ 1.00GHz	4,918	NA
Intel Core i5-7442EQ @ 2.10GHz	4,834	\$250.00*
Intel Core i5-6442EQ @ 1.90GHz	4,519	\$250.00*
AMD Athlon 220GE	4,505	\$101.33
Intel Core i3-8109U @ 3.00GHz	4,385	\$399.99

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Intel Core i3-8121U @ 2.20GHz	4,351	\$290.00
Intel Core i3-1000NG4 @ 1.10GHz	4,326	NA
AMD Athlon Gold 3150U	4,162	NA
Intel Core i5-7287U @ 3.30GHz	4,149	NA
Intel Core i3-8145UE @ 2.20GHz	4,140	\$281.00*
AMD Ryzen 3 3200U	4,086	NA
Intel Core i3-10110U @ 2.10GHz	4,083	\$409.95
AMD Athlon 300U	4,069	NA
AMD Ryzen Embedded R1505G	3,904	NA
Intel Core i3-8145U @ 2.10GHz	3,777	\$281.00*
AMD Ryzen Embedded V1202B	3,734	NA
Intel Core i3-8130U @ 2.20GHz	3,664	\$281.00*
Intel Core i3-10110Y @ 1.00GHz	3,639	\$287.00*
AMD Ryzen 3 2200U	3,634	NA
AMD A8-7680	3,553	\$50.08*
Intel Core i3-7167U @ 2.80GHz	3,489	NA
AMD Embedded R-Series RX-418GD Radeon R6	3,426	NA
AMD Athlon Silver 3050U	3,209	NA
Intel Core i5-L16G7 @ 1.40GHz	3,164	\$281.00*
Intel Core i7-8500Y @ 1.50GHz	3,062	\$393.00*
Intel Core m3-8100Y @ 1.10GHz	3,032	\$281.00*
Intel Core i3-7130U @ 2.70GHz	3,015	\$459.99*
Intel Core i5-8210Y @ 1.60GHz	2,905	NA
AMD A6-9400	2,717	NA
AMD 3015e	2,678	NA
AMD 3020e	2,671	NA
AMD PRO A10-9700B	2,626	NA
Intel Pentium Silver N5000 @ 1.10GHz	2,608	\$161.00*
Intel Core i3-7020U @ 2.30GHz	2,564	\$281.00*
Intel Pentium Silver N5030 @ 1.10GHz	2,534	NA
Intel Core i3-7102E @ 2.10GHz	2,521	\$225.00*
Intel Celeron N4120 @ 1.10GHz	2,481	NA
Intel Celeron N4100 @ 1.10GHz	2,456	\$107.00*
Intel Pentium 6405U @ 2.40GHz	2,430	\$161.00*
Intel Core i3-6102E @ 1.90GHz	2,349	\$225.00*
Intel Pentium 5405U @ 2.30GHz	2,317	\$161.00*
Intel Core i5-8200Y @ 1.30GHz	2,308	\$291.00*
Intel Pentium 4417U @ 2.30GHz	2,282	\$161.00*
Intel Pentium G4400TE @ 2.40GHz	2,190	\$64.00*
Intel Celeron G3900TE @ 2.30GHz	1,967	\$42.00*
Intel Celeron 4305UE @ 2.00GHz	1,950	NA
Intel Atom E3940 @ 1.60GHz	1,940	NA
Intel Core i5-4422E @ 1.80GHz	1,907	\$266.00*
Intel Core i5-4230U @ 1.90GHz	1,853	NA
AMD GX-420MC SOC	1,796	NA
AMD PRO A6-7350B	1,679	NA
Intel Celeron N4020 @ 1.10GHz	1,658	NA
Intel Pentium 4415Y @ 1.60GHz	1,640	\$161.00*

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Intel Celeron 3965U @ 2.20GHz	1,627	\$107.00*
Intel Celeron N4000 @ 1.10GHz	1,596	NA
Intel Pentium 4425Y @ 1.70GHz	1,544	\$161.00*
Intel Celeron 3867U @ 1.80GHz	1,467	\$107.00*
Intel Celeron N4000 @ 1.10GHz	1,461	\$107.00*
Intel Celeron 5205U @ 1.90GHz	1,451	\$107.00*
Intel Pentium 4410Y @ 1.50GHz	1,387	\$161.00*
AMD A6-9225	1,351	NA
Intel Atom T5700 @ 1.70GHz	1,326	NA
Intel Celeron 1020M @ 2.10GHz	1,275	NA
AMD A6-9220C	1,273	NA
AMD Embedded G-Series GX-224IJ Radeon R4E	1,271	NA
Intel Pentium A1020 @ 2.41GHz	1,265	NA
AMD A4-9125	1,263	NA
Intel Celeron 4205U @ 1.80GHz	1,251	\$107.00*
Intel Celeron 3965Y @ 1.50GHz	1,220	\$107.00*
AMD R-272F APU	1,215	NA
AMD A9-9420e	1,179	NA
Intel Celeron 2002E @ 1.50GHz	1,091	\$86.00*
Intel Atom C2538 @ 2.40GHz	1,086	\$104.00*
AMD PRO A4-4350B	1,064	NA
AMD A6-9200	1,057	NA
AMD A6-9220e	1,017	NA
AMD A4-9120C	937	NA
AMD A4-9120e	851	NA
AMD G-T40R	120	NA
VIA Eden 1000MHz	80	NA

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