

# 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	CPU Mark	Price Performance	Sorted by Date
<b>PassMark - CPU Mark</b>			
Laptop & Portable CPU Performance			
Updated 6th of October 2020			
CPU	CPU Mark		Price (USD)
<b>High End</b>			
<b>High Mid Range</b>			
<b>Low Mid Range</b>			
<b>Low End</b>			
<b>Best Value (On Market)</b>	AMD Ryzen 9 4900HS	19.830	NA
<b>Best Value XY Scatter</b>	AMD Ryzen 9 4900H	19.566	NA
<b>Best Value (All time)</b>	AMD Ryzen 7 4800H	19.387	NA
	AMD Ryzen 7 4800H	18.943	NA
	AMD Ryzen 7 Extreme Edition	18.284	NA
	Intel Core i9-10980HK @ 2.40GHz	17.329	\$583.00*
	AMD Ryzen 7 4800U	17.265	NA
<b>New Desktop</b>	Intel Xeon W-10885M @ 2.40GHz	17.105	\$623.00*
<b>New Laptop</b>	Intel Core i9-10885H @ 2.40GHz	16.074	\$556.00*
	Intel Core i7-10875H @ 2.30GHz	15.970	\$450.00*
<b>Single Thread</b>	AMD Ryzen 7 PRO 4750U	15.736	NA
<b>Systems with Multiple CPUs</b>	Intel Xeon E-2286M @ 2.40GHz	15.573	\$623.00*
<b>Overclocked</b>	Intel Core i9-9980HK @ 2.40GHz	15.298	\$583.00*
<b>Power Performance</b>	AMD Ryzen 5 4600HS	15.155	NA
<b>CPU Mark by Socket Type</b>	Intel Core i9-10880H @ 2.30GHz	15.137	NA
<b>Cross-Platform CPU Performance</b>	AMD Ryzen 5 4600H	14.958	NA
	AMD Ryzen 5 4600U	14.567	NA
	Intel Core i9-9880H @ 2.30GHz	14.104	\$556.00*
	AMD Ryzen 7 4700U	13.858	NA
<b>CPU Mega List</b>	Intel Xeon W-10855M @ 2.80GHz	13.412	\$450.00*
<b>Search Model</b>	Intel Core i7-10850H @ 2.70GHz	13.120	\$395.00*
	AMD Ryzen 5 PRO 4650U	12.992	NA
<b>Compare 0</b>	Intel Core i7-10750H @ 2.60GHz	12.719	NA
	Intel Core i7-1165G7 @ 2.80GHz	12.402	\$426.00*
<b>Common</b>	Intel Xeon E-2276M @ 2.80GHz	12.310	\$450.00*
<b>Most Benchmarked</b>	Intel Core i7-8700B @ 3.20GHz	12.286	\$303.00*
	AMD Ryzen 5 PRO 4500U	12.049	NA
	Intel Xeon E-2186M @ 2.90GHz	11.854	\$623.00*
	Intel Core i7-9750HF @ 2.60GHz	11.803	\$395.00*
	Intel Core i7-9850H @ 2.60GHz	11.635	\$395.00*
	Intel Core i7-9750H @ 2.60GHz	11.381	\$395.00*
<b>AMD vs Intel Market Share Year on Year Performance</b>	AMD Ryzen 5 4500U	11.249	NA
	Intel Core i9-8950HK @ 2.90GHz	10.751	\$583.00*
	Intel Core i7-1068NG7 @ 2.30GHz	10.689	\$426.00*
	Intel Core i7-9700TE @ 1.80GHz	10.680	\$323.00*
	Intel Xeon E-2176M @ 2.70GHz	10.611	\$450.00*
	Intel Core i7-8850H @ 2.60GHz	10.456	\$395.00*
	Intel Core i7-1185G7 @ 3.00GHz	10.354	\$426.00*
	Intel Core i7-8750H @ 2.20GHz	10.200	\$395.00*
	AMD Ryzen 3 PRO 4450U	10.078	NA
	Intel Core i7-10710U @ 1.10GHz	10.018	\$588.95
	Intel Core i5-1038NG7 @ 2.00GHz	9.907	\$320.00*
	Intel Core i5-9400F @ 2.90GHz	9.599	\$142.83
	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 i7-10810U @ 1.10GHz	9.160	\$443.00*
	Intel Core i7-9850HL @ 1.90GHz	9.112	\$395.00*
	Intel Core i7-1065G7 @ 1.30GHz	8.979	\$426.00*
	Intel Core i5-10300H @ 2.50GHz	8.923	\$250.00*
	Intel Core i5-10400H @ 2.70GHz	8.911	\$250.00*
	Intel Core i7-8559U @ 2.70GHz	8.892	\$789.98
	Intel Core i7-8809G @ 3.10GHz	8.774	NA
	Intel Core i5-1035G7 @ 1.20GHz	8.495	\$320.00*
	AMD Ryzen 7 3750H	8.437	NA
	Intel Core i5-1135G7 @ 2.40GHz	8.357	\$309.00*

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Intel Core i5-8259U @ 2.30GHz	8,275	\$473.94
Intel Core i5-1035G4 @ 1.10GHz	8,241	\$309.00*
Intel Core i5-8257U @ 1.40GHz	8,182	\$320.00*
Intel Core i5-8400H @ 2.50GHz	8,146	\$250.00*
AMD Ryzen 5 3550H	8,141	NA
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 i5-9300H @ 2.40GHz	7,998	\$250.00*
Intel Core i7-8705G @ 3.10GHz	7,996	\$1,535.11*
Intel Core i5-1035G1 @ 1.00GHz	7,989	\$297.00*
Intel Core i7-8709G @ 3.10GHz	7,921	NA
Intel Core i5-8279U @ 2.40GHz	7,917	\$320.00*
Intel Core i7-8557U @ 1.70GHz	7,820	\$431.00*
Intel Core i5-8260U @ 1.60GHz	7,776	\$297.00*
AMD Ryzen 3 4300U	7,761	NA
Intel Core i5-9300HF @ 2.40GHz	7,742	\$250.00*
AMD Ryzen 7 2800H	7,656	NA
Intel Core i3-10100T @ 3.00GHz	7,589	\$122.00*
AMD Ryzen 5 2600H	7,537	NA
Intel Core i5-8300H @ 2.30GHz	7,517	\$250.00*
Intel Core i7-10610U @ 1.80GHz	7,359	\$409.00*
AMD Ryzen 7 PRO 3700U	7,345	NA
AMD Ryzen 7 3700U	7,335	NA
AMD Ryzen 7 PRO 2700U	7,242	NA
AMD Ryzen 7 3780U	7,203	NA
AMD Ryzen 5 3500U	7,159	NA
AMD Ryzen 3 PRO 3200GE	7,113	NA
Intel Core i5-8305G @ 2.80GHz	7,073	NA
Intel Core i7-10510U @ 1.80GHz	7,070	\$409.00*
Intel Core i7-7820EQ @ 3.00GHz	7,059	\$378.00*
Intel Core i7-5850EQ @ 2.70GHz	7,036	\$435.00*
AMD Ryzen 5 PRO 3500U	6,999	NA
Intel Core i3-8100B @ 3.60GHz	6,829	\$133.00*
AMD Ryzen Embedded V1605B	6,812	NA
Intel Core i5-10310U @ 1.70GHz	6,794	\$297.00*
AMD Ryzen 5 2500U	6,624	NA
Intel Core i7-8665U @ 1.90GHz	6,615	\$679.30
Intel Xeon E3-1268L v5 @ 2.40GHz	6,600	\$456.54*
AMD Ryzen 7 2700U	6,595	NA
Intel Core i7-8665UE @ 1.70GHz	6,587	\$409.00*
Intel Core i5-10210U @ 1.60GHz	6,492	\$559.95
Intel Core i7-8565U @ 1.80GHz	6,482	NA
AMD Ryzen 5 PRO 2500U	6,474	NA
Intel Core i5-8350U @ 1.70GHz	6,420	\$297.00*
Intel Core i5-8365U @ 1.60GHz	6,366	\$634.95
Intel Core i5-8265U @ 1.60GHz	6,254	\$749.00
Intel Core i7-1060NG7 @ 1.20GHz	6,234	NA
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	5,873	NA
AMD Ryzen 3 3300U	5,871	NA
Intel Core i7-10510Y @ 1.20GHz	5,523	\$403.00*
Intel Core i5-1030NG7 @ 1.10GHz	5,331	NA
AMD Ryzen 3 2300U	5,301	NA
Intel Core i3-1005G1 @ 1.20GHz	5,250	\$281.00*
Intel Core i5-8365UE @ 1.60GHz	5,243	\$297.00*
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	4,619	\$250.00*
AMD Athlon 220GE	4,505	\$100.30
Intel Core i3-8109U @ 3.00GHz	4,382	\$479.99
AMD Ryzen 3 3250U	4,341	NA
Intel Core i3-8121U @ 2.20GHz	4,340	\$290.00
Intel Core i3-1000G4 @ 1.10GHz	4,326	NA
AMD Athlon Gold 3150U	4,185	NA
Intel Core i5-7287U @ 3.30GHz	4,149	NA
Intel Core i3-8145UE @ 2.20GHz	4,140	\$281.00*
AMD Athlon 300U	4,107	NA
AMD Ryzen 3 3200U	4,082	NA
Intel Core i3-10110U @ 2.10GHz	4,076	\$435.00
AMD Ryzen Embedded R1505G	3,904	NA
Intel Core i3-8145U @ 2.10GHz	3,744	\$281.00*
AMD Ryzen Embedded V1202B	3,734	NA
Intel Core i3-8130U @ 2.20GHz	3,665	\$281.00*
Intel Core i5-6287U @ 3.10GHz	3,655	\$304.00*
Intel Core i3-10110Y @ 1.00GHz	3,639	\$287.00*
AMD Ryzen 3 2200U	3,618	NA
AMD A8-7680	3,558	\$50.08*
Intel Core i3-7167U @ 2.80GHz	3,489	NA
Intel Core i3-7100H @ 3.00GHz	3,460	\$225.00*
AMD Embedded R-Series RX-418GD Radeon R6	3,426	NA

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AMD Athlon Silver 3050U	3,233	NA
Intel Core i7-8500Y @ 1.50GHz	3,189	\$393.00*
Intel Core m3-8100Y @ 1.10GHz	3,036	\$281.00*
Intel Core i3-7130U @ 2.70GHz	2,995	\$459.99*
Intel Core i5-8210Y @ 1.60GHz	2,905	NA
AMD A6-9400	2,717	NA
AMD 3015e	2,678	NA
AMD 3020e	2,664	NA
AMD PRO A10-9700B	2,626	NA
Intel Pentium Silver N5000 @ 1.10GHz	2,586	\$161.00*
Intel Pentium Silver N5030 @ 1.10GHz	2,564	NA
Intel Core i3-7020U @ 2.30GHz	2,560	\$281.00*
Intel Core i3-7102E @ 2.10GHz	2,521	\$225.00*
Intel Celeron N4100 @ 1.10GHz	2,477	\$107.00*
Intel Celeron N4120 @ 1.10GHz	2,449	NA
Intel Pentium 6405U @ 2.40GHz	2,430	\$161.00*
Intel Core i3-6102E @ 1.90GHz	2,349	\$225.00*
Intel Pentium 5405U @ 2.30GHz	2,322	\$161.00*
Intel Core i5-8200Y @ 1.30GHz	2,308	\$291.00*
Intel Pentium 4417U @ 2.30GHz	2,284	\$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
Intel Celeron 3965U @ 2.20GHz	1,786	\$107.00*
Intel Celeron N4020 @ 1.10GHz	1,705	NA
AMD PRO A6-7350B	1,679	NA
Intel Pentium 4415Y @ 1.60GHz	1,649	\$161.00*
Intel Celeron N4000C @ 1.10GHz	1,679	NA
AMD A9-9425	1,555	NA
Intel Pentium 4425Y @ 1.70GHz	1,544	\$161.00*
Intel Celeron 3867U @ 1.80GHz	1,467	\$107.00*
Intel Celeron N4000 @ 1.10GHz	1,467	\$107.00*
Intel Celeron 5205U @ 1.90GHz	1,451	\$107.00*
Intel Pentium 4410Y @ 1.50GHz	1,387	\$161.00*
Intel Atom C2538 @ 2.40GHz	1,356	\$104.00*
AMD A6-9225	1,353	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-224J Radeon R4E	1,271	NA
AMD A4-9125	1,269	NA
Intel Pentium A1020 @ 2.41GHz	1,265	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	1,166	NA
Intel Celeron 2002E @ 1.50GHz	1,091	\$86.00*
AMD PRO A4-4350B	1,064	NA
AMD A6-9200	1,061	NA
AMD A6-9220e	1,017	NA
AMD A4-9120C	937	NA
AMD A4-9120e	931	NA
AMD G-T40R	120	NA
VIA Eden 1000MHz	80	NA

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