

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
PassMark - CPU Mark				
Laptop & Portable CPU Performance				
Updated 26th of August 2022				
	CPU	CPU Mark		Price (USD)
High End High Mid Range Low Mid Range Low End	Intel Core i7-12800HX	36,481		\$457.00*
	Intel Core i9-12900HX	35,154		\$606.00*
	Intel Core i9-12950HX	34,603		\$590.00*
	Intel Core i7-12850HX	31,230		\$428.00*
	Intel Core i9-12900HK	29,706		\$635.00*
	Intel Core i9-12900H	29,070		\$617.00*
	Intel Core i7-12700H	27,020		\$457.00*
	AMD Ryzen 9 6900HX	24,930		NA
	Intel Core i5-12600HX	24,689		\$284.00*
	Intel Core i7-12650H	24,650		\$457.00*
Best Value (On Market) Best Value XY Scatter Best Value (All time)	AMD Ryzen 9 PRO 6950H	24,464		NA
	AMD Ryzen 7 PRO 6850H	24,325		NA
	AMD Ryzen 9 6900HS	24,298		NA
	Intel Core i7-12800H	23,935		\$457.00*
	AMD Ryzen 9 PRO 6950HS	23,843		NA
	Intel Core i9-11980HK @ 2.60GHz	23,460		\$583.00*
	AMD Ryzen 7 6800HS Creator Edition	23,418		NA
	AMD Ryzen 7 6800HS	23,416		NA
	Intel Xeon W-11955M @ 2.60GHz	23,346		\$623.00*
	AMD Ryzen 7 6800H	23,171		NA
New Desktop New Laptop	AMD Ryzen 9 5900HX	23,033		NA
	AMD Ryzen 9 5980HX	22,948		NA
	Intel Core i9-11950H @ 2.60GHz	22,378		\$556.00*
	Apple M1 Max 10 Core 3200 MHz	22,310		NA
	Intel Core i5-12600H	22,201		\$311.00*
	AMD Ryzen 9 5900HS	22,172		NA
	Apple M1 Pro 10 Core 3200 MHz	22,085		NA
	Intel Core i5-12500H	21,572		\$311.00*
	AMD Ryzen 7 PRO 6850U	21,543		NA
	AMD Ryzen 9 5980HS	21,491		NA
Single Thread Systems with Multiple CPUs Overclocked Power Performance CPU Mark by Socket Type Cross-Platform CPU Performance	AMD Ryzen 7 5800H	21,370		NA
	AMD Ryzen 7 6800U	21,358		NA
	Intel Core i7-11800H @ 2.30GHz	21,183		\$395.00*
	Intel Core i7-11850H @ 2.50GHz	21,154		\$395.00*
	Intel Core i9-11900H @ 2.50GHz	21,153		\$546.00*
	AMD Ryzen 7 6800H	23,033		NA
	AMD Ryzen 9 5900HX	23,033		NA
	AMD Ryzen 9 5980HX	22,948		NA
	Intel Core i9-11950H @ 2.60GHz	22,378		\$556.00*
	Apple M1 Max 10 Core 3200 MHz	22,310		NA
CPU Mega List Search Model	Intel Core i5-12600H	22,201		\$311.00*
	AMD Ryzen 9 5900HS	22,172		NA
	Apple M1 Pro 10 Core 3200 MHz	22,085		NA
	Intel Core i5-12500H	21,572		\$311.00*
	AMD Ryzen 7 PRO 6850U	21,543		NA
	AMD Ryzen 9 5980HS	21,491		NA
	AMD Ryzen 7 5800H	21,370		NA
	AMD Ryzen 7 6800U	21,358		NA
	Intel Core i7-11800H @ 2.30GHz	21,183		\$395.00*
	Intel Core i7-11850H @ 2.50GHz	21,154		\$395.00*
Compare Common Most Benchmarked	Intel Core i9-11900H @ 2.50GHz	21,153		\$546.00*
	AMD Ryzen 7 6800H	23,171		NA
	AMD Ryzen 9 5900HX	23,033		NA
	AMD Ryzen 9 5980HX	22,948		NA
	Intel Core i9-11950H @ 2.60GHz	22,378		\$556.00*
	Apple M1 Max 10 Core 3200 MHz	22,310		NA
	Intel Core i5-12600H	22,201		\$311.00*
	AMD Ryzen 9 5900HS	22,172		NA
	Apple M1 Pro 10 Core 3200 MHz	22,085		NA
	Intel Core i5-12500H	21,572		\$311.00*
AMD vs Intel Market Share Year on Year Performance	AMD Ryzen 7 PRO 6850U	21,543		NA
	AMD Ryzen 9 5980HS	21,491		NA
	AMD Ryzen 7 5800H	21,370		NA
	AMD Ryzen 7 6800U	21,358		NA
	Intel Core i7-11800H @ 2.30GHz	21,183		\$395.00*
	Intel Core i7-11850H @ 2.50GHz	21,154		\$395.00*
	Intel Core i9-11900H @ 2.50GHz	21,153		\$546.00*

AMD Ryzen 9 5900H		20,960	NA
AMD Ryzen 7 5800HS Creator Edition		20,948	NA

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Video Card Benchmarks Hard Drive Benchmarks RAM PC Systems Android iOS / iPhone

AMD Ryzen 7 5800HS		20,677	NA
Intel Core i5-1250P		20,636	NA
AMD Ryzen 5 6600H		20,179	NA
AMD Ryzen 5 PRO 6650H		20,103	NA
AMD Ryzen 7 PRO 6850HS		20,062	NA
Intel Core i7-1280P		19,927	\$482.00*
AMD Ryzen 9 4900HS		19,350	NA
AMD Ryzen 9 4900H		19,325	NA
AMD Ryzen 7 4800H		18,957	NA
AMD Ryzen 7 5800U		18,827	NA
AMD Ryzen 7 4800HS		18,821	NA
Intel Xeon W-11855M @ 3.20GHz		18,604	\$450.00*
Intel Core i5-12450H		18,369	\$311.00*
AMD Ryzen 7 5825U		18,329	NA
AMD Ryzen 7 Extreme Edition		18,192	NA
Intel Core i7-1270P		18,140	NA
Intel Core i3-1220P		18,058	\$281.00*
Intel Core i5-1240P		17,345	NA
AMD Ryzen 7 PRO 5850U		17,342	NA
Apple M1 Pro 8 Core 3200 MHz		17,306	NA
AMD Ryzen 5 6600U		17,257	NA
Intel Core i7-1260P		17,203	NA
AMD Ryzen 5 5600H		17,111	NA
AMD Ryzen 5 5560U		17,084	NA
AMD Ryzen 5 PRO 6650U		17,032	NA
AMD Ryzen 7 4800U		17,017	NA
Intel Core i5-12500TE		16,865	\$205.00*
AMD Ryzen 7 PRO 5875U		16,861	NA
Intel Core i7-10700TE @ 2.00GHz		16,332	\$330.00*
Intel Core i7-10700E @ 2.90GHz		16,257	\$330.00*
Intel Core i5-11500H @ 2.90GHz		16,133	\$250.00*
Intel Core i9-10980HK @ 2.40GHz		16,089	\$583.00*
Intel Xeon W-10885M @ 2.40GHz		16,080	\$623.00*
Intel Core i5-11400H @ 2.70GHz		15,962	\$250.00*
AMD Ryzen 7 5700U		15,931	NA
AMD Ryzen 7 4850U Mobile		15,920	NA
Intel Core i7-11600H @ 2.90GHz		15,907	\$395.00*
Intel Core i9-10885H @ 2.40GHz		15,564	\$556.00*
Intel Core i5-11260H @ 2.60GHz		15,447	\$250.00*
AMD Ryzen 7 PRO 4750U		15,414	NA
Intel Core i7-10875H @ 2.30GHz		15,373	\$450.00*
AMD Ryzen 5 5600U		15,368	NA
Apple M2 8 Core 3500 MHz		15,367	NA
AMD Ryzen 5 PRO 5650U		15,152	NA
Intel Core i7-10870H @ 2.20GHz		14,903	\$417.00*
AMD Ryzen 5 PRO 4400GE		14,795	NA
AMD Ryzen 5 4600HS		14,741	NA
Intel Core i9-10880H @ 2.30GHz		14,735	NA
AMD Ryzen 5 4600H		14,706	NA
Apple M1 8 Core 3200 MHz		14,509	NA
AMD Ryzen 5 5625U		14,420	NA
AMD Ryzen 5 PRO 5675U		13,828	NA
Intel Core i5-1235U		13,823	\$309.00*
AMD Ryzen 7 4700U		13,598	NA
AMD Ryzen 5 4600U		13,484	NA
Intel Core i7-1255U		13,356	\$426.00*
AMD Ryzen 5 5500U		13,182	NA
Intel Core i7-1265U		13,047	\$426.00*
Intel Core i3-12100TE		12,961	\$125.00*
Intel Xeon W-10855M @ 2.80GHz		12,906	\$450.00*
AMD Ryzen 5 PRO 4650U		12,836	NA

CPU Benchmarks		Video	Card Benchmarks	Hard Drive Benchmarks	RAM	PC Systems	Android	iOS / iPhone
Intel Core i7-11370H @ 3.30GHz							12,319	\$462.00*
Intel Core i7-10750H @ 2.60GHz							12,267	NA
Intel Core i7-10850H @ 2.70GHz							12,154	\$395.00*
AMD Ryzen 3 PRO 3470U							11,974	NA
AMD Ryzen 5 PRO 4500U							12,049	NA
Intel Core i7-11370H @ 3.30GHz							11,942	\$426.00*
AMD Ryzen 3 5400U							11,828	NA
Intel Core i5-10500H @ 2.50GHz							11,626	\$250.00*
Intel Core i3-1215U							11,618	NA
AMD Ryzen 3 PRO 5450U							11,563	NA
Intel Core i7-9750HF @ 2.60GHz							11,159	\$395.00*
AMD Ryzen 5 4500U							11,072	NA
Intel Core i5-11300H @ 3.10GHz							11,030	\$309.00*
Intel Core i7-1195G7 @ 2.90GHz							10,944	\$426.00*
AMD Ryzen 3 PRO 4200GE							10,930	NA
Intel Core i7-9700TE @ 1.80GHz							10,826	\$323.00*
Intel Core i7-1185G7 @ 3.00GHz							10,824	\$426.00*
Intel Core i5-11320H @ 3.20GHz							10,708	\$309.00*
Intel Core i7-1250U							10,659	\$426.00*
Intel Core i7-11390H @ 3.40GHz							10,559	\$426.00*
Intel Core i7-1165G7 @ 2.80GHz							10,503	\$426.00*
Intel Core i5-1145G7 @ 2.60GHz							10,210	NA
AMD Ryzen 3 5425U							10,203	NA
AMD Ryzen 3 PRO 4450U							10,169	NA
Intel Core i5-1135G7 @ 2.40GHz							10,067	\$309.00*
Intel Core i5-1155G7 @ 2.50GHz							10,057	\$309.00*
Intel Core i7-1068NG7 @ 2.30GHz							10,050	\$426.00*
Intel Core i7-1185G7E @ 2.80GHz							9,980	\$431.00*
Intel Core i7-10710U @ 1.10GHz							9,968	\$644.99*
Intel Core i5-10500TE @ 2.30GHz							9,960	\$195.00*
AMD Ryzen 3 5300U							9,953	NA
Intel Core i3-1125G4 @ 2.00GHz							9,939	NA
Intel Core i5-1230U							9,896	\$309.00*
Intel Core i5-1038NG7 @ 2.00GHz							9,628	\$320.00*
Intel Core i7-1160G7 @ 1.20GHz							9,520	\$426.00*
Intel Core i5-9500TE @ 2.20GHz							9,212	\$192.00*
Intel Core i7-9850HL @ 1.90GHz							9,112	\$395.00*
Intel Core i5-1130G7 @ 1.10GHz							8,927	\$309.00*
Intel Core i5-10400H @ 2.60GHz							8,841	\$250.00*
Intel Core i5-10300H @ 2.50GHz							8,646	\$250.00*
Intel Core i5-1035G7 @ 1.20GHz							8,517	\$320.00*
Intel Core i7-1180G7 @ 1.30GHz							8,514	\$426.00*
Intel Core i7-8569U @ 2.80GHz							8,451	\$431.00*
Intel Core i5-10200H @ 2.40GHz							8,383	\$250.00*
Intel Core i7-8557U @ 1.70GHz							8,225	\$431.00*
Intel Core i5-1035G4 @ 1.10GHz							8,140	\$309.00*
AMD Athlon Gold PRO 4150GE							8,070	NA
Intel Core i5-8269U @ 2.60GHz							8,055	\$320.00*
Intel Core i7-10810U @ 1.10GHz							7,973	\$443.00*
Intel Core i5-8260U @ 1.60GHz							7,854	\$439.99*
Intel Core i5-8279U @ 2.40GHz							7,748	\$320.00*
Intel Core i5-8257U @ 1.40GHz							7,665	\$320.00*
AMD Ryzen 7 3780U							7,651	NA
Intel Core i5-9300HF @ 2.40GHz							7,615	\$250.00*
Intel Core i5-1035G1 @ 1.00GHz							7,600	\$297.00*
AMD Ryzen 3 4300U							7,565	NA
AMD Ryzen 5 3580U							7,383	NA
Intel Core i3-10100T @ 3.00GHz							7,376	\$122.00*
AMD Ryzen 7 3700C							7,145	NA
Intel Core i7-10610U @ 1.80GHz							7,036	\$409.00*
Intel Core i7-1060NG7 @ 1.20GHz							6,993	NA
AMD Ryzen 5 3450U							6,794	NA
Intel Core i7-10510U @ 1.80GHz							6,787	\$409.00*
Intel Pentium Gold 8505							6,771	NA

Intel Core i5-10310U @ 1.70GHz		5.327	\$297.00*
Intel Core i5-10210U @ 1.60GHz		6.365	\$702.62*
Intel Core i3-1115G4 @ 3.00GHz		6.243	\$281.00*

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Intel Core i3-10310U @ 1.70GHz		5.327	NA
AMD Ryzen 3 3350U		5.889	NA
Intel Core i5-7440EQ @ 2.90GHz		5.711	\$250.00*
Intel Core i5-8365UE @ 1.60GHz		5.555	\$297.00*
Intel Pentium Gold 7505 @ 2.00GHz		5.289	NA
AMD Ryzen 5 3500C		5.214	NA
Intel Core i3-1005G1 @ 1.20GHz		5.080	\$281.00*
Intel Core i7-8665UE @ 1.70GHz		5.017	\$409.00*
Intel Core i7-10510Y @ 1.20GHz		5.016	\$403.00*
Intel Core i5-10210Y @ 1.00GHz		4.964	NA
Microsoft ARM SQ1 @ 3.0 GHz		4.961	NA
Intel Core i5-6442EQ @ 1.90GHz		4.598	\$250.00*
AMD Athlon Silver 3050GE		4.545	NA
Intel Pentium Silver N6005 @ 2.00GHz		4.510	NA
Intel Core i3-9100TE @ 2.20GHz		4.501	\$122.00*
Intel Pentium 6805 @ 1.10GHz		4.448	\$161.00*
Intel Core i5-6350HQ @ 2.30GHz		4.255	\$306.00*
Intel Core i3-8140U @ 2.10GHz		4.227	NA
Intel Core i3-8145UE @ 2.20GHz		4.087	\$281.00*
Intel Core i3-10110U @ 2.10GHz		4.006	\$434.17*
AMD Athlon Gold 3150U		3.971	NA
AMD Ryzen 3 3250U		3.962	NA
Intel Core i3-1000NG4 @ 1.10GHz		3.836	NA
Intel Core i5-L16G7 @ 1.40GHz		3.432	\$281.00*
Intel Pentium Silver N5020 @ 1.10GHz		3.404	NA
Intel Celeron N5100 @ 1.10GHz		3.275	NA
Intel Core i3-10110Y @ 1.00GHz		3.256	\$287.00*
AMD Ryzen Embedded R1305G		3.109	NA
AMD Ryzen 3 3250C		3.044	NA
AMD Athlon Silver 3050U		3.042	NA
AMD Athlon Gold 3150C		2.973	NA
AMD Athlon Silver 3050e		2.955	NA
AMD 3015e		2.720	NA
AMD A6-9400		2.717	NA
Intel Pentium Silver N5030 @ 1.10GHz		2.695	NA
Intel Celeron 7305		2.665	\$107.00*
Intel Celeron N4120 @ 1.10GHz		2.512	NA
AMD 3020e		2.477	NA
Intel Pentium 6405U @ 2.40GHz		2.370	\$161.00*
Intel Celeron 6305 @ 1.80GHz		2.154	NA
Intel Celeron 4305UE @ 2.00GHz		1.876	NA
Intel Pentium 4425Y @ 1.70GHz		1.732	\$161.00*
Intel Celeron N4020C @ 1.10GHz		1.652	NA
Intel Celeron N4020 @ 1.10GHz		1.570	NA
Intel Celeron 5205U @ 1.90GHz		1.442	\$107.00*
Intel Celeron N4000C @ 1.10GHz		1.360	NA
Intel Celeron 1020M @ 2.10GHz		1.275	NA
Intel Pentium A1020 @ 2.41GHz		1.265	NA
AMD R-272F APU		1.215	NA
AMD PRO A4-4350B		1.106	NA
AMD A4-9120C		869	NA
Intel Pentium Dual T2390 @ 1.86GHz		745	NA

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