# 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 14th of September 2022

| CPU | CPU Mark | Price (USD) |
|---|---|---|
| Intel Core i9-12900HX | 35,595 | $606.00* |
| Intel Core i7-12800HX | 35,369 | $457.00* |
| Intel Core i9-12950HX | 33,584 | $590.00* |
| Intel Core i7-12850HX | 30,810 | $428.00* |
| Intel Core i9-12900HK | 29,586 | $635.00* |
| Intel Core i9-12900H | 29,093 | $617.00* |
| Intel Core i7-12700H | 26,955 | $457.00* |
| AMD Ryzen 9 6900HX | 25,004 | NA |
| Intel Core i7-12650H | 24,756 | $457.00* |
| Intel Core i5-12600HX | 24,689 | $284.00* |
| AMD Ryzen 9 PRO 6950H | 24,464 | NA |
| Intel Core i7-12800H | 24,395 | $457.00* |
| AMD Ryzen 7 PRO 6850H | 24,325 | NA |
| AMD Ryzen 9 6900HS | 24,119 | NA |
| AMD Ryzen 9 PRO 6950HS | 23,843 | NA |
| AMD Ryzen 7 6800H | 23,488 | NA |
| Intel Core i9-11980HK @ 2.60GHz | 23,453 | $583.00* |
| AMD Ryzen 7 6800HS Creator Edition | 23,449 | NA |
| Intel Xeon W-11955M @ 2.60GHz | 23,276 | $623.00* |
| AMD Ryzen 9 5900HX | 23,019 | NA |
| AMD Ryzen 9 5980HX | 22,948 | NA |

| | | |
|---|---|---|
| AMD Ryzen 7 6800HS | 22,555 | NA |
| Intel Core i9-11950H @ 2.60GHz | 22,396 | $556.00* |
| AMD Ryzen 9 5900HS | 22,170 | NA |
| Apple M1 Pro 10 Core 3200 MHz | 22,062 | NA |
| Intel Core i5-12500H | 21,583 | $311.00* |
| AMD Ryzen 9 5980HS | 21,491 | NA |
| AMD Ryzen 9 6900HS Creator Edition | 21,488 | NA |
| AMD Ryzen 7 5800H | 21,355 | NA |
| AMD Ryzen 7 PRO 6850U | 21,183 | NA |
| Intel Core i7-11800H @ 2.30GHz | 21,168 | $395.00* |
| Intel Core i7-11850H @ 2.50GHz | 21,137 | $395.00* |
| Intel Core i9-11900H @ 2.50GHz | 21,075 | $546.00* |
| AMD Ryzen 9 5900H | 20,960 | NA |
| AMD Ryzen 7 5800HS Creator Edition | 20,948 | NA |
| AMD Ryzen 7 6800U | 20,902 | NA |
| Intel Core i7-12700TE | 20,712 | $344.00* |
| AMD Ryzen 7 5800HS | 20,695 | NA |
| AMD Ryzen 5 PRO 6650H | 20,103 | NA |
| AMD Ryzen 7 PRO 6850HS | 20,062 | NA |
| Intel Core i7-1280P | 19,745 | $482.00* |
| AMD Ryzen 5 6600H | 19,456 | NA |
| AMD Ryzen 9 4900HS | 19,349 | NA |
| AMD Ryzen 9 4900H | 19,268 | NA |
| AMD Ryzen 7 4800H | 18,953 | NA |
| AMD Ryzen 7 5800U | 18,821 | NA |
| AMD Ryzen 7 4800HS | 18,819 | NA |
| Intel Core i7-1270P | 18,451 | NA |
| Intel Xeon W-11855M @ 3.20GHz | 18,446 | $450.00* |
| Intel Core i5-12450H | 18,375 | $311.00* |
| Intel Core i5-1250P | 18,337 | NA |
| AMD Ryzen 7 5825U | 18,200 | NA |
| AMD Ryzen 7 Extreme Edition | 18,192 | NA |
| Intel Core i3-1220P | 18,058 | $281.00* |
| AMD Ryzen 7 PRO 5850U | 17,346 | NA |
| AMD Ryzen 7 4980U Microsoft Surface Edition | 17,335 | NA |
| Intel Core i5-1240P | 17,333 | NA |
| Apple M1 Pro 8 Core 3200 MHz | 17,312 | NA |
| Intel Core i7-1260P | 17,263 | NA |
| AMD Ryzen 5 6600U | 17,257 | NA |
| AMD Ryzen 5 PRO 6650U | 17,144 | NA |
| AMD Ryzen 5 5600H | 17,103 | NA |
| AMD Ryzen 5 5560U | 17,084 | NA |
| AMD Ryzen 7 4800U | 17,005 | NA |
| Intel Core i5-12500TE | 16,865 | $205.00* |
| Intel Core i7-10700E @ 2.90GHz | 16,418 | $330.00* |
| Intel Core i7-10700TE @ 2.00GHz | 16,332 | $330.00* |
| AMD Ryzen 7 PRO 5875U | 16,322 | NA |
| Intel Core i5-11500H @ 2.90GHz | 16,133 | $250.00* |

## CPU Benchmarks

| | | |
|---|---|---|
| Intel Core i9-10980HK @ 2.40GHz | 16,089 | $583.00* |
| AMD Ryzen 7 4850U Mobile | 15,920 | NA |
| Intel Core i7-11600H @ 2.90GHz | 15,907 | $395.00* |
| AMD Ryzen 7 5700U | 15,899 | NA |
| Apple M2 8 Core 3500 MHz | 15,574 | NA |
| Intel Core i5-11260H @ 2.60GHz | 15,573 | $250.00* |
| Intel Core i9-10885H @ 2.40GHz | 15,565 | $556.00* |
| AMD Ryzen 7 PRO 4750U | 15,407 | NA |
| Intel Core i7-10875H @ 2.30GHz | 15,363 | $450.00* |
| AMD Ryzen 5 5600U | 15,335 | NA |
| AMD Ryzen 5 PRO 5650U | 15,141 | NA |
| Intel Core i7-10870H @ 2.20GHz | 14,874 | $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 | 14,680 | NA |
| Apple M1 8 Core 3200 MHz | 14,484 | NA |
| AMD Ryzen 5 5625U | 14,365 | NA |
| AMD Ryzen 5 PRO 5675U | 14,231 | NA |
| AMD Ryzen 7 4700U | 13,581 | NA |
| Intel Core i5-1235U | 13,581 | $309.00* |
| AMD Ryzen 5 4600U | 13,445 | NA |
| Intel Core i7-1255U | 13,371 | $426.00* |
| Intel Core i7-1265U | 13,176 | $426.00* |
| AMD Ryzen 5 5500U | 13,163 | NA |
| Intel Core i3-12100TE | 12,961 | $125.00* |
| Intel Xeon W-10855M @ 2.80GHz | 12,906 | $450.00* |
| AMD Ryzen 5 PRO 4650U | 12,838 | NA |
| Intel Core i7-1260U | 12,701 | NA |
| Intel Core i7-11375H @ 3.30GHz | 12,350 | $482.00* |
| Intel Core i7-10750H @ 2.60GHz | 12,241 | NA |
| Intel Core i3-1210U | 12,130 | NA |
| Intel Core i7-10850H @ 2.70GHz | 12,118 | $395.00* |
| AMD Ryzen 3 PRO 5475U | 12,074 | NA |
| AMD Ryzen 5 PRO 4500U | 12,049 | NA |
| Intel Core i7-11370H @ 3.30GHz | 11,937 | $426.00* |
| AMD Ryzen 3 5400U | 11,828 | NA |
| Intel Core i3-1215U | 11,618 | NA |
| Intel Core i5-10500H @ 2.50GHz | 11,610 | $250.00* |
| Intel Core i7-1250U | 11,290 | $426.00* |
| Intel Core i7-9750HF @ 2.60GHz | 11,159 | $395.00* |
| AMD Ryzen 3 PRO 5450U | 11,082 | NA |
| AMD Ryzen 5 4500U | 11,059 | NA |
| Intel Core i5-11300H @ 3.10GHz | 11,053 | $309.00* |
| Intel Core i7-1195G7 @ 2.90GHz | 10,944 | $426.00* |
| AMD Ryzen 3 PRO 4200GE | 10,930 | NA |
| Intel Core i7-1185G7 @ 3.00GHz | 10,774 | $426.00* |

## CPU Benchmarks

| | | |
|---|---|---|
| Intel Core i7-9700TE @ 1.80GHz | 10,740 | $323.00* |
| Intel Core i5-11320H @ 3.20GHz | 10,723 | $309.00* |
| Intel Core i7-1165G7 @ 2.80GHz | 10,482 | $426.00* |
| AMD Ryzen 3 5425U | 10,359 | NA |
| Intel Core i5-1145G7 @ 2.60GHz | 10,207 | NA |
| AMD Ryzen 3 PRO 4450U | 10,082 | NA |
| Intel Core i5-1135G7 @ 2.40GHz | 10,056 | $309.00* |
| Intel Core i7-1068NG7 @ 2.30GHz | 10,050 | $426.00* |
| Intel Core i5-1155G7 @ 2.50GHz | 10,003 | $309.00* |
| Intel Core i7-1185G7E @ 2.80GHz | 9,980 | $431.00* |
| Intel Core i5-10500TE @ 2.30GHz | 9,960 | $195.00* |
| Intel Core i3-1125G4 @ 2.00GHz | 9,960 | NA |
| Intel Core i7-10710U @ 1.10GHz | 9,931 | $644.99* |
| AMD Ryzen 3 5300U | 9,923 | NA |
| Intel Core i5-1038NG7 @ 2.00GHz | 9,601 | $320.00* |
| Intel Core i7-1160G7 @ 1.20GHz | 9,229 | $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 | 8,642 | $250.00* |
| Intel Core i7-1180G7 @ 1.30GHz | 8,514 | $426.00* |
| Intel Core i5-1035G7 @ 1.20GHz | 8,502 | $320.00* |
| Intel Core i7-8569U @ 2.80GHz | 8,479 | $431.00* |
| Intel Core i5-10200H @ 2.40GHz | 8,363 | $250.00* |
| Intel Core i7-8557U @ 1.70GHz | 8,225 | $431.00* |
| Intel Core i5-1035G4 @ 1.10GHz | 8,130 | $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 | 7,984 | $443.00* |
| Intel Core i5-8260U @ 1.60GHz | 7,854 | $439.99* |
| Intel Core i5-8279U @ 2.40GHz | 7,713 | $320.00* |
| Intel Core i5-8257U @ 1.40GHz | 7,651 | $320.00* |
| AMD Ryzen 7 3780U | 7,651 | NA |
| Intel Core i5-1035G1 @ 1.00GHz | 7,595 | $297.00* |
| Intel Core i5-9300HF @ 2.40GHz | 7,579 | $250.00* |
| AMD Ryzen 3 4300U | 7,564 | NA |
| AMD Ryzen 5 3580U | 7,383 | NA |
| Intel Core i3-10100T @ 3.00GHz | 7,350 | $122.00* |
| AMD Ryzen 7 3700C | 7,145 | NA |
| Intel Core i7-10610U @ 1.80GHz | 7,026 | $409.00* |
| Intel Core i7-1060NG7 @ 1.20GHz | 6,985 | NA |
| AMD Ryzen 5 3450U | 6,783 | NA |
| Intel Pentium Gold 8505 | 6,670 | NA |
| Intel Core i5-10310U @ 1.70GHz | 6,545 | $297.00* |
| Intel Core i3-1115G4 @ 3.00GHz | 6,236 | $281.00* |
| Intel Core i7-8565UC @ 1.80GHz | 6,187 | NA |
| Intel Core i5-1030NG7 @ 1.10GHz | 5,969 | NA |

| | | |
|---|---|---|
| AMD Ryzen 3 3350U | 5,894 | NA |
| Intel Core i5-7440EQ @ 2.90GHz | 5,711 | $250.00* |
| 2.00GHz | 5,281 | NA |
| AMD Ryzen 5 3500C | 5,214 | NA |
| Intel Core i3-1005G1 @ 1.20GHz | 5,072 | $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 Pentium Silver N6005 @ 2.00GHz | 4,584 | NA |
| AMD Athlon Silver 3050GE | 4,545 | 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 | 4,001 | $434.17* |
| AMD Athlon Gold 3150U | 3,975 | NA |
| AMD Ryzen 3 3250U | 3,937 | NA |
| Intel Core i3-1000NG4 @ 1.10GHz | 3,851 | 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 | 3,336 | NA |
| Intel Core i3-10110Y @ 1.00GHz | 3,256 | $287.00* |
| AMD Athlon Gold 3150C | 3,205 | NA |
| AMD Ryzen Embedded R1305G | 3,109 | NA |
| AMD Ryzen 3 3250C | 3,044 | NA |
| AMD Athlon Silver 3050U | 3,041 | NA |
| AMD Athlon Silver 3050e | 2,952 | NA |
| AMD A6-9400 | 2,717 | NA |
| Intel Pentium Silver N5030 @ 1.10GHz | 2,690 | NA |
| AMD 3015e | 2,672 | NA |
| Intel Celeron 7305 | 2,665 | $107.00* |
| Intel Celeron N4120 @ 1.10GHz | 2,514 | NA |
| AMD 3020e | 2,470 | 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 | 1,448 | $107.00* |
| Intel Celeron N4000C @ 1.10GHz | 1,360 | NA |
| Intel Pentium A1020 @ 2.41GHz | 1,290 | NA |
| Intel Celeron 1020M @ 2.10GHz | 1,275 | NA |
| AMD R-272F APU | 1,215 | NA |
| AMD PRO A4-4350B | 1,109 | NA |
| Intel Pentium Dual T2390 @ 1.86GHz | 745 | NA |

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