

# CPU Benchmarks

Over 1,000,000 CPUs Benchmarked






## Intel Core i7-13700KF

Price and performance details for the Intel Core i7-13700KF can be found below. This is made using thousands of [PerformanceTest](#) benchmark results and is updated daily.

- The first graph shows the relative performance of the CPU compared to the 10 other common (single) CPUs in terms of PassMark CPU Mark.
- The 2nd graph shows the value for money, in terms of the CPUMark per dollar.
- The pricing history data shows the price for a single Processor. For multiple Processors, multiply the price shown by the number of CPUs.

### Is the Intel Core i7-13700KF Good for Gaming?

This is a newly released CPU that contains 16 Cores and 24 Threads. The Intel Core i7-13700KF also has great single threaded performance that will serve well in games. Paired with a good [videocard](#), *is this CPU Good for Gaming?* Yes, this is a high end chip that would be great for gaming. [\[More ...\]](#)

CPUS		Intel Core i7-13700KF	Average CPU Mark
 High End		Description:	<div><div>46548</div></div>
	High Mid Range	Class: Desktop	
	Low Mid Range	Socket: FCLGA1700	
	Low End	Total Cores: 16 Cores, 24 Threads	
 Best Value (On Market)		Performance Cores: 8 Cores, 16 Threads, 4.2 GHz Base, 5.4 GHz Turbo	Single Thread Rating: 4381 Samples: 414* * <a href="#">Margin for error</a> : Low
	Best Value XY Scatter	Efficient Cores: 8 Cores, 8 Threads, 2.5 GHz Base, 3.4 GHz Turbo	
	Best Value (All time)		
 New Desktop		Typical TDP: 125 W	+ COMPARE
	New Laptop	TDP Up : 253 W	
 Single Thread		Cache Size: L1: 1408 KB, L2: 24.0 MB, L3: 30 MB	
	Systems with Multiple CPUs	Memory Support: Max. Memory Size: 128 GB (Up to DDR5 5600 MT/s, Up to DDR4 3200 MT/s)	
	Overclocked		
	Power Performance	Other names: 13th Gen Intel(R) Core(TM) i7-13700KF, 13th Gen Intel Core i7-13700KF	
	CPU Mark by Socket Type	CPU First Seen on Charts: Q4 2022	
	Cross-Platform CPU Performance	CPUMark/\$Price: 116.70	

## CPU Benchmarks

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★ Common  
Most  
Benchmarked

AMD vs Intel  
Market Share  
Year on Year  
Performance



Adobe

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Najnowsza usługa Creative Cloud dla zespołów jest już dostępna.

Kup teraz

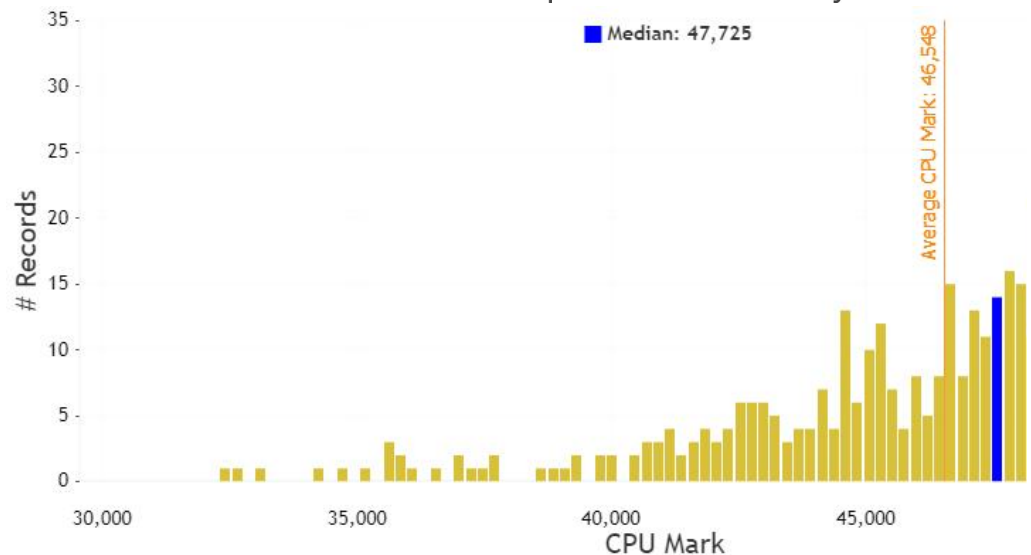
### CPU Test Suite Average Results for Intel Core i7-13700KF

Integer Math	156,864 MOps/Sec
Floating Point Math	116,951 MOps/Sec
Find Prime Numbers	208 Million Primes/Sec
Random String Sorting	65 Thousand Strings/Sec
Data Encryption	33,993 MBytes/Sec
Data Compression	597.2 MBytes/Sec
Physics	2,491 Frames/Sec
Extended Instructions	37,300 Million Matrices/Sec
Single Thread	4,381 MOps/Sec

From submitted results to PerformanceTest V10 as of 16th of February 2023.

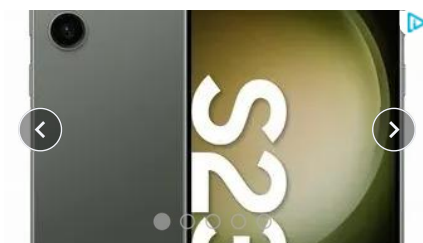
### CPU Mark Distribution for Intel Core i7-13700KF

#### Submitted Baseline Distribution Graph as of 12th of February 2023






From submitted results to PerformanceTest V10 as of 12th of February 2023.

For distribution graph only: Results are [trimmed](#) to exclude outliers by disregarding the bottom 1% and top 1% of submissions.

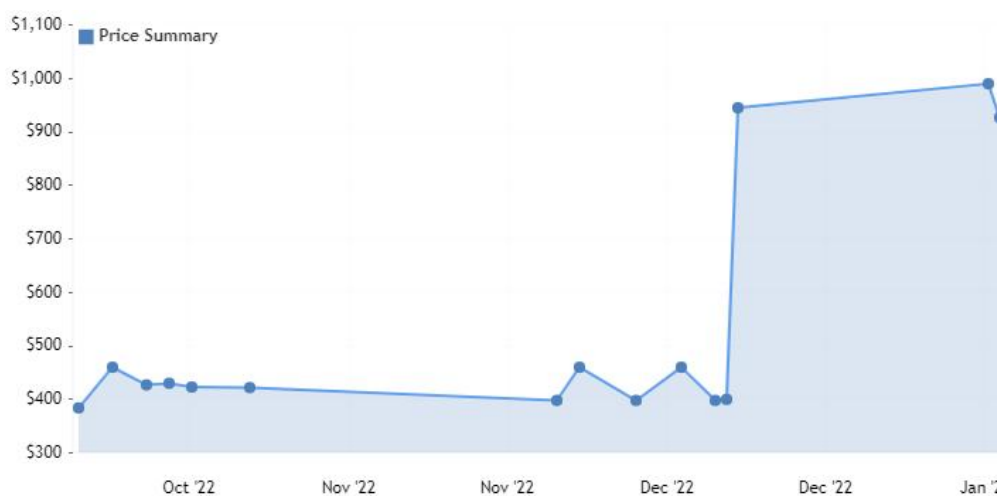


## CPU Benchmarks

Merchant	Price	Purchase
	\$398.88 USD	<a href="#">BUY NOW!</a>
	NA	<a href="#">CPU Not Available. See Other Models</a>
	\$398.99 USD	<a href="#">BUY NOW!</a>

Note: PassMark Software may earn compensation for sales from links on this site through affiliate programs.

### Pricing History



### Machines with this CPU (or similar)

	<a href="#">ADVANCED BATTLESTATIONS Stratos Ruby High Performance Gaming PC – Intel i7 13700KF - GeForce RTX 4080-16GB DDR5 5600MHz -1TB M.2 NVMe SSD- Window 11-TA137KF4802</a>	\$2699.99 (www.amazon.com)
	<a href="#">IBUYPOWER Gaming PC Computer Desktop TraceMR 298i (Intel i7-13700KF 3.4 GHz (5.4 GHz Max Turbo), Geforce RTX 3070 8 GB, 32 GB 4800 MHz DDR5 RAM, 1 TB NVMe SSD, Windows 11 Home 64-bit)</a>	\$1799.99 (www.amazon.com)
	<a href="#">Thermaltake LCGS Frostbite i477T Gaming Desktop (Liquid Cooled Intel Core™ i7-13700KF, ToughRam XG 5600MT/s 32GB DDR5 RGB Memory, NVIDIA® GeForce RTX™ 4070 Ti, 1TB NVMe Gen4 M.2, Wifi) D3FB-Z790-47T-LCS</a>	\$2499.99 (www.amazon.com)
	<a href="#">YEYIAN Yari X13 Gaming PC The 13th Gen Desktop Computers, Intel Core i7 13700KF 5.40 GHz, Nvidia Geforce RTX 3070 Ti 8 GB, 32GB DDR5 5200Mhz, 1TB NVMe SSD 2TB 3.5" Hard Drive, VR Ready ARGB, Win 11 Home</a>	\$2399.00 (www.amazon.com)
	<a href="#">Cobratype Chimera Legend Desktop Gaming PC - Intel Core i7-13700KF, RTX 4080, 32 GB DDR5 RAM, 2 TB NVMe, AIO Liquid Cooler, Windows 11 Pro</a>	\$3179.99 (www.amazon.com)

Note: PassMark Software may earn compensation for sales from links on this site through affiliate programs.

### CPU Mark Relative to Top 10 Common Desktop CPUs

As of 17th of February 2023 - Higher results represent better performance

## CPU Benchmarks ▼

Intel Core i7-13700KF	46,548
<a href="#">Intel Core i9-12900K</a>	<a href="#">41,576</a>
<a href="#">Intel Core i7-12700K</a>	<a href="#">34,766</a>
<a href="#">AMD Ryzen 7 3700X</a>	<a href="#">22,687</a>
Apple M1 Max 10 Core 3200 MHz	<a href="#">22,151</a>
Apple M1 Pro 10 Core 3200 MHz	<a href="#">21,943</a>
<a href="#">AMD Ryzen 5 5600X</a>	<a href="#">21,930</a>
<a href="#">Intel Core i9-9900K @ 3.60GHz</a>	<a href="#">18,555</a>
<a href="#">AMD Ryzen 5 3600</a>	<a href="#">17,793</a>
<a href="#">Intel Core i7-9700K @ 3.60GHz</a>	<a href="#">14,555</a>
Apple M1 8 Core 3200 MHz	<a href="#">14,255</a>

## CPU Value (CPU Mark / \$Price )

As of 17th of February 2023 - Higher results represent better value

Processor	CPU Mark / \$Price
<a href="#">AMD Ryzen 5 3600</a>	<a href="#">177.95</a>
<a href="#">AMD Ryzen 5 5600X</a>	<a href="#">132.11</a>
Intel Core i7-13700KF	116.70
<a href="#">AMD Ryzen 7 3700X</a>	<a href="#">114.01</a>
<a href="#">Intel Core i9-12900K</a>	<a href="#">102.42</a>
<a href="#">Intel Core i7-12700K</a>	<a href="#">85.00</a>
<a href="#">Intel Core i7-9700K @ 3.60GHz</a>	<a href="#">49.01</a>
<a href="#">Intel Core i9-9900K @ 3.60GHz</a>	<a href="#">31.18</a>
Apple M1 8 Core 3200 MHz	NA
Apple M1 Max 10 Core 3200 MHz	NA
Apple M1 Pro 10 Core 3200 MHz	NA

Processor	Average Thread Rating	
Intel Core i7-13700KF		4,381
<a href="#">Intel Core i9-12900K</a>		<a href="#">4,206</a>
<a href="#">Intel Core i7-12700K</a>		<a href="#">4,060</a>
<a href="#">Apple M1 Max 10 Core 3200 MHz</a>		<a href="#">3,847</a>
<a href="#">Apple M1 Pro 10 Core 3200 MHz</a>		<a href="#">3,824</a>
<a href="#">Apple M1 8 Core 3200 MHz</a>		<a href="#">3,730</a>
<a href="#">AMD Ryzen 5 5600X</a>		<a href="#">3,356</a>
<a href="#">Intel Core i9-9900K @ 3.60GHz</a>		<a href="#">2,948</a>
<a href="#">Intel Core i7-9700K @ 3.60GHz</a>		<a href="#">2,891</a>
<a href="#">AMD Ryzen 7 3700X</a>		<a href="#">2,665</a>
<a href="#">AMD Ryzen 5 3600</a>		<a href="#">2,569</a>

### Last 5 Baselines for Intel Core i7-13700KF

Most recent listed first

Baseline	CPU Mark	
<a href="#">BL1746602 - Feb 16 2023</a> <span>[Overclocked]</span>		<a href="#">50594</a>
<a href="#">BL1746449 - Feb 16 2023</a>		<a href="#">48734</a>
<a href="#">BL1746216 - Feb 16 2023</a> <span>[Excluded]</span>		<a href="#">43207</a>
<a href="#">BL1745848 - Feb 15 2023</a>		<a href="#">45011</a>
<a href="#">BL1745814 - Feb 15 2023</a> <span>[Overclocked]</span>		<a href="#">49639</a>

Additional baselines can be obtained using Windows version of [PerformanceTest's Manage Baselines](#) feature.

### Popular comparisons for Intel Core i7-13700KF

As of 17th of February 2023 - Higher results represent better performance

Processor	Average CPU Mark	
Intel Core i7-13700KF		46,548

<a href="#">AMD Ryzen 7 7700X</a> vs <a href="#">Intel Core i7-13700KF</a>	<a href="#">36,434</a> (-21.7%)
<a href="#">Intel Core i7-13700K</a> vs <a href="#">Intel Core i7-13700KF</a>	<a href="#">47,027</a> (+1.0%)
<a href="#">Intel Core i9-12900K</a> vs <a href="#">Intel Core i7-13700KF</a>	<a href="#">41,576</a> (-10.7%)
<a href="#">Intel Core i9-12900KF</a> vs <a href="#">Intel Core i7-13700KF</a>	<a href="#">41,383</a> (-11.1%)
<a href="#">AMD Ryzen 9 7900</a> vs <a href="#">Intel Core i7-13700KF</a>	<a href="#">48,544</a> (+4.3%)
<a href="#">Intel Core i7-13700</a> vs <a href="#">Intel Core i7-13700KF</a>	<a href="#">40,970</a> (-12.0%)
<a href="#">AMD Ryzen 9 5900X</a> vs <a href="#">Intel Core i7-13700KF</a>	<a href="#">39,262</a> (-15.7%)
<a href="#">Intel Core i5-13600K</a> vs <a href="#">Intel Core i7-13700KF</a>	<a href="#">38,479</a> (-17.3%)
<a href="#">Intel Core i7-13700F</a> vs <a href="#">Intel Core i7-13700KF</a>	<a href="#">39,790</a> (-14.5%)
<a href="#">Intel Core i9-12900F</a> vs <a href="#">Intel Core i7-13700KF</a>	<a href="#">37,361</a> (-19.7%)
<a href="#">AMD Ryzen 7 5800X3D</a> vs <a href="#">Intel Core i7-13700KF</a>	<a href="#">27,836</a> (-40.2%)

## Is the Intel Core i7-13700KF Good for Gaming?

As of 17th of February 2023 - Higher results represent better performance

Processor	Relative <a href="#">Gaming Score</a>
<a href="#">Intel Core i9-13900T</a>	<a href="#">8,921</a>
<a href="#">Intel Core i9-13900KS</a>	<a href="#">8,558</a>
<a href="#">Intel Core i9-13900F</a>	<a href="#">8,492</a>
<a href="#">Intel Core i9-13900K</a>	<a href="#">7,817</a>
<a href="#">Intel Core i9-13900KF</a>	<a href="#">7,584</a>
<a href="#">AMD Ryzen 7 5800X3D</a>	<a href="#">7,096</a>
<a href="#">AMD Ryzen 9 7900X</a>	<a href="#">6,712</a>
<a href="#">Intel Core i7-13700K</a>	<a href="#">6,690</a>
<a href="#">Intel Core i5-13600K</a>	<a href="#">6,674</a>
<a href="#">Intel Core i5-13600KF</a>	<a href="#">6,642</a>
Intel Core i7-13700KF	6,509

## Software

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