

Core i7-10700KF revealed benchmark score, as strong as Ryzen 7 3800X but doubled power consumption

The early signals are not optimistic for Intel.

Although not yet launched, but the 10th generation Intel chips for desktop (codenamed Comet Lake). Last week, samples of some chips such as Core i5-10400, Core i5-10500, Core i5-10600K, Core i9-10900 and Core i9-10900K were publicly available on Taobao's e-commerce site. China.


This week, we have continued to get the benchmark score of Core i7-10700KF chip, bringing some disappointing news for fans of the "green team".

Talking about the parameters of the Core i7-10700KF chip, leaked information said it will have 8 cores, 16 threads, 16MB L3 cache, 3.8Ghz base clock and can boost to 5.1Ghz. Core i7-10700KF is the non-GPU version of Core i7-10700K and all has a TDP of 125W.


According to information from the website of SiSoftware SANDRA tool, Core i7-10700KF scores 294.33GOPS. In comparison, this score of Core i7-10700KF is equivalent to AMD's Ryzen 7 3800X chip (308.9 GOPS).

SiSoftware Official Live Ranker
 Details for Result ID Intel(R) Core(TM) i7-10700KF CPU @ 4.00GHz (8C 16T 4.91GHz/5.3GHz, 4.6GHz IMC/4.8GHz, 8x 256kB L2, 16MB L3)
 SiSoftware : Home | Teams | Users | Brands | Computers/Devices | Aggregated Results | Individual Results

Welcome to the SiSoftware Official Live Ranker for English speakers.

Rank		
 #1,454	Local Rank	#1,454
	Position	Higher than 98.54% ranked results
	Points	99
	Score	294.33GOPS
	Qualification	Excellent Performance :)
	Created	23:26:58
Serial Number c2ffce988e9d4ecd8eedaeaf88ab787a1c4a19cac8af9c4fc		
Individual Results		
 Processor Arithmetic	Dhrystone Int	390.08GIPS
	Dhrystone Long	431.44GIPS
	Whetstone Single-float	244.45GFLOPS
	Whetstone Double-float	201.76GFLOPS
Global Rank Top Processor Arithmetic Ranks		
Individual Result		
 Intel	Result ID	Intel(R) Core(TM) i7-10700KF CPU @ 4.00GHz (8C 16T 4.91GHz/5.3GHz, 4.6GHz IMC/4.8GHz, 8x 256kB L2, 16MB L3)
	Component	Intel Core i7-10700KF
	Brand	Intel
	Price	Best Price for Intel Core i7-10700KF @ Amazon
	Firmware	MU06A501C2
	Number of Devices / Threads	1 / 16
	State	Normal
	Speed	4.91GHz
	Performance vs. Speed (aka Speed Efficiency)	59.95GOPS/GHz
	Power	250.0W
	Performance vs. Power (aka Power Efficiency)	1.18GOPS/W
	Capacity	16T
	Capacity vs. Power (aka Size Efficiency)	0.06T/W
	Top Processor Arithmetic Ranks Top Components Top Brands Details for Component Intel Core i7-10700KF Best Price for Intel Core i7-10700KF @ Amazon	
Computer/Device		
	Name	Intel CometLake Client Platform CometLake Client System (Intel CometLake OC UDIMM (ERB/CRB))

However, it is worth mentioning that the Intel chip had to "eat power" twice the AMD chip to achieve the same performance level. The SiSoftware SANDRA website index shows Ryzen 7 3800X to reach 2.37GOPS / W, while the Core i7-10700KF is only 1.18GOP / W.

AMD Ryzen 7 3800X 8-Core Processor (8C 16T 4.47GHz, 1.6GHz IMC, 8x 512kB L2, 2x 16MB L3)  AMD Ryzen 7 3800X 8-Core AMD Best Price for AMD Ryzen 7 3800X 8-Core @ Amazon MUBF710013 1 / 16 Normal 4.47GHz 65.78GOPS/GHz 124.2W 2.37GOPS/W 16T 0.13T/W	Intel(R) Core(TM) i7-10700KF CPU @ 4.00GHz (8C 16T 4.91GHz/5.3GHz, 4.6GHz IMC/4.8GHz, 8x 256kB L2, 16MB L3)  Intel Core i7-10700KF Intel Best Price for Intel Core i7-10700KF @ Amazon MU06A501C2 1 / 16 Normal 4.91GHz 59.95GOPS/GHz 250.0W 1.18GOPS/W 16T 0.06T/W
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These early benchmarks showed troubling signs for Intel, whose chips were on par with rivals AMD but had much lower power efficiency. Not only does it make users feel anxious about holding their monthly electricity bill, but poor performance also causes the chip to generate more heat and thus can affect system performance.

This can be considered as a result of Intel's use of the 14nm architecture on the Comet Lake chip generation, lagging significantly behind the 7nm process on the current product of rival AMD.

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