

# Core i3-12100F Alder Lake could be the fastest quad-core CPU ever made by Intel

In fact, the current quad-core CPU segment is no longer as attractive as before, because of the increasingly affordable availability and cost of 6-core as well as 8-core products.

However, this does not mean that manufacturers have given up on this market segment. For example, in the case of Intel's recently launched Core i3-12100F Alder Lake model. Actual test results show that this chip can give 'crazy' performance when overclocked, even becoming the fastest quad-core CPU ever created.

First of all, it must be confirmed that Core i3-12100F is a low-end chip. In fact, it's the entry-level LGA 1700 Alder Lake model you can buy for as little as \$97. This chip has a 4-core and 8-thread configuration, all based on the Golden Cove 10nm ESF core architecture. The CPU has a base clock of 3.3GHz and a boost clock of up to 4.3GHz. It has a base TDP of 58W, while the maximum turbo power is 89W. The CPU comes with the all-new Laminar RM1 cooling system, which Intel features on even higher-end product lines. Therefore, effective heat dissipation is a factor that users can be completely assured of.





In terms of performance, famous overclocker Alva Jonatha (nickname: LUCKY\_NOOB) recently performed an interesting test, which is to use Intel Core i3-12100F to run some benchmark tests at stock clocks. with Laminar RM1 cooling system included. And the results are truly amazing.

In the Y-Cruncher (PI-1B) rating scale, the Core i3-12100F is currently the fastest quad-core chip, even faster than the AMD Ryzen 3 5300G overclocked to 5.6 GHz on the LN2. It's just behind the Core i3-12100 with AIO heatsink (about 4%), but compared to the AMD LN2 overclocked APU, the 12100F is up to 18% faster. This is clearly an impressive result of the Core i3-12100F's stock (AVX-512) performance. Even without AVX-512, this chip still offers the same performance as the overclocked AMD LN2 chip.

y-crunder - Pi-1b 4xCPU Worldwide Overall Ranking

Member ranking    Team ranking

RECALCULATE RANKING    Rankings or points out of date?

SCORE	USER	FREQUENCY	HARDWARE	COOLING	HW			
1. 42sec 508ms	ObscureParadox	4174.1 MHz	Intel Core i3 12100	AIO	2pts		0	4
2. 44sec 201ms	Lucky_n00b	4385 MHz	Intel Core i3 12100F	Stock	2pts		15	14
3. 52sec 270ms	safedisk	5598 MHz	AMD Ryzen 3 5300G	LN2	2pts		0	5
4. 54sec 484ms	noizemaker	5350.3 MHz	AMD Ryzen 3 5300G	LN2	1.2pts		0	3
5. 54sec 947ms	NoMS	5375.5 MHz	AMD Ryzen 3 PRO 5350G		2pts		3	3
6. 55sec 273ms	ironbrillopad	6403.1 MHz	Intel Core i7 7740X	LN2	2.8pts		5	7
7. 55sec 389ms	Splave	6467 MHz	Intel Core i7 7740X	LN2	1.9pts		0	0
8. 55sec 554ms	niobium615	6440 MHz	Intel Core i7 7700K	LN2	15.4pts		0	3
9. 56sec 704ms	K0obies	6200 MHz	Intel Core i7 7740X	LN2	3.4pts		0	2
10. 57sec 104ms	shar00750	5350.1 MHz	AMD Ryzen 3 5300G	LN2	0.7pts		4	3
11. 57sec 484ms	chispy	4936.6 MHz	AMD Ryzen 3 5300G	SS	0.4pts		0	2
12. 57sec 764ms	StingerYar	5650 MHz	AMD Ryzen 3 3100	LN2	2pts		0	0
13. 58sec 69ms	Chill-Man	6388 MHz	Intel Core i7 7700K	LN2	10.2pts		0	0
14. 58sec 480ms	unityofsaints	5400 MHz	AMD Ryzen 3 3300X	LN2	1.5pts		0	2
15. 58sec 713ms	bigblock990	6000 MHz	Intel Core i7 7700K	LN2	7.6pts		2	0
16. 58sec 866ms	Crazzy85	5100.2 MHz	AMD Ryzen 3 5300G	LN2	0.4pts		0	4
17. 59sec 217ms	funsoul	6500 MHz	Intel Core i7 7700K	LN2	5.8pts		1	1
18. 59sec 459ms	yosarianilives	4489 MHz	Intel Xeon W-2225	SS	2pts		0	3
19. 59sec 624ms	Zarok77	5500.2 MHz	AMD Ryzen 3 3100		1.2pts		0	3
20. 59sec 687ms	OVIZ Hardware Lab	4682.9 MHz	AMD Ryzen 3 5300G	Chilled	0.4pts		0	1

Not stopping there, the Intel Core i3-12100F can also deliver the same performance as the LN2 overclocked Ryzen 3 3100 CPU (5.6 GHz) at the stock clock in Cinebench R20. In GPUPI (1B), the new i3 chip is even faster than the Core i7-7740X (7GHz LN2 cooler). These are clearly all extremely impressive results for a low-end, low-cost chip, making it the fastest quad-core CPU model on the market at the moment.

Intel's Core i3 and Core i5 Alder Lake CPU models are receiving a lot of positive reviews from the community, promising to create really great low-cost gaming PCs when combined with DDR4 memory.

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