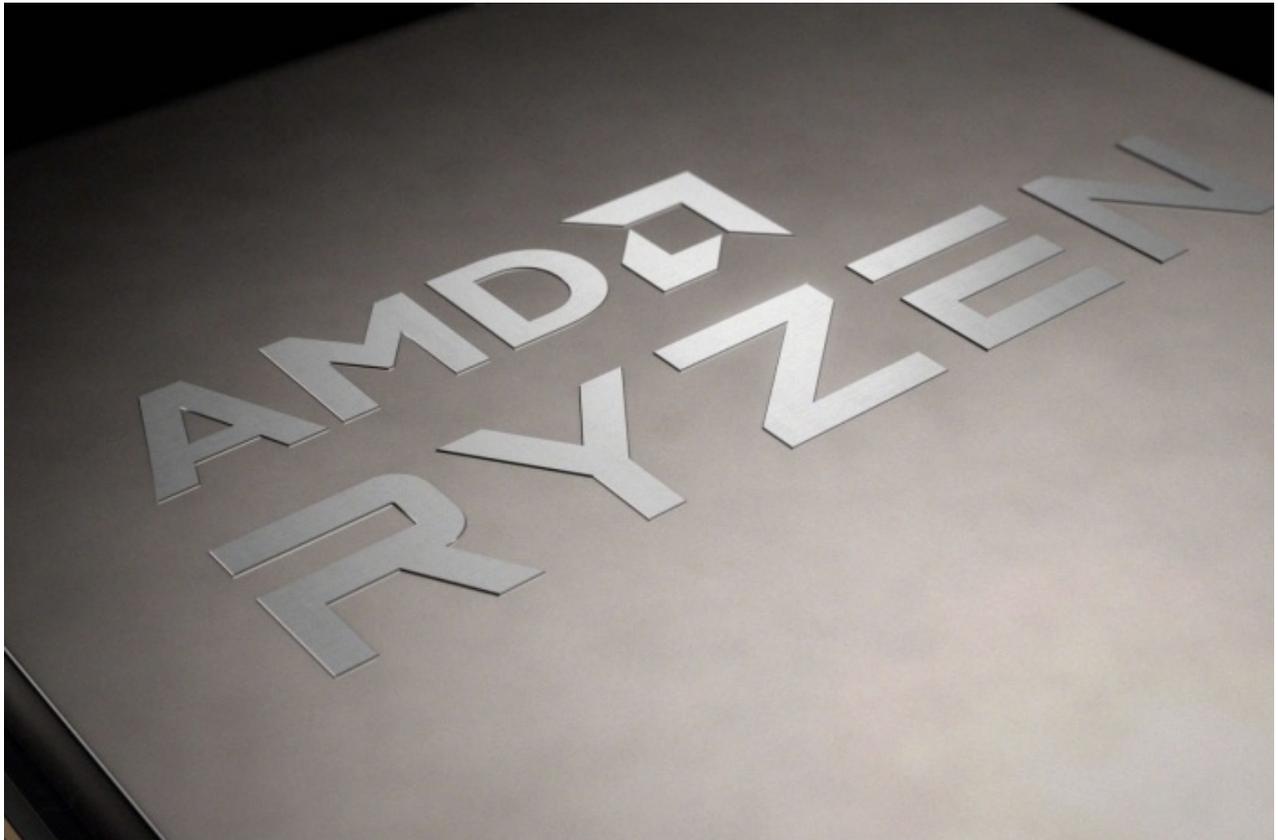


AMD Zen 4 offrirà un aumento dell'IPC di oltre un 20%



LINK (<https://www.nexthardware.com/news/processor-chipset/9382/amd-zen-4-offrira-un-aumento-dellipc-di-oltre-un-20.htm>)

DDR5-5200, 28 linee PCIe Gen 4.0 e USB 4.0 nativo per i futuri Ryzen Raphael a 5nm.



Il canale YouTube [Moore's Law is Dead \(https://www.youtube.com/watch?v=BKYSFeL2fBw\)](https://www.youtube.com/watch?v=BKYSFeL2fBw) ha rilasciato nel suo ultimo video un sacco di informazioni sulla futura architettura Zen 4 di AMD che vanno a completare quanto emerso in rete negli ultimi giorni.

L'architettura core AMD Zen 4 sarà realizzata da TSMC con processo produttivo a 5nm (mentre l'I/O Die (IOD) sarà a 6nm) e fornirà un aumento dell'IPC di oltre il 20%, sostanzialmente in linea con le voci precedenti che indicavano un guadagno del 25%.

La nuova architettura supporterà l'istruzione AVX-512, ma resta da vedere se sarà implementata su tutta la linea o solo su alcuni particolari SKU ad uso professionale considerato il "peso" in termini di consumi.



I futuri Ryzen 6000 o 7000 (la nomenclatura non è ancora chiara) nome in codice "Raphael" dovrebbero essere in configurazione 16 core nel modello di punta al momento del lancio, anche se si era vociferato di un aumento generale del core count, ma l'utilizzo di tre chiplet potrebbe far schizzare il TDP ed il prezzo alle stelle.

AMD Zen 4 Early Leak (Late May 2021)

- The first thing I must emphasize is that some things can change over the next few months, Zen 4 is not Design Complete Yet.
- Zen 4 Core Architecture on TSMC 5nm
 - Above 20% IPC Increase over Zen 3 – I have heard references to an IPC increase notably higher than this, but I do not from enough of my must trusted sources.
 - 8 Core Chiplets
 - 50%+ Performance/Watt increase (genoa over Milan)
 - AVX-512 Support
- Raphael Desktop - AM5
 - 24-Core Designs exist, but I cannot confirm AMD will launch them immediately. And if they do launch, they will not be cheap.
 - 16-Cores for the top chip is expected by numerous sources, but not all of them.
 - As of now 6nm seems to be the node for the I/O die, sharing much of it's design with the I/O in AMD's Rembrandt APU.
 - Dual Channel DDR5-5200 is the current target speed, and you should be able to support three NVMe 4.0 drives and more USB Ports at 3.2 Specifications than X570.
 - 28 Lanes of PCIe 4.0 for X670 is the current design, but I can't rule out changes or an X690 platform with PCIe 5.0 for halo models
 - Native USB4 support is disputed (I know it's in Rembrandt), and clockspeeds are also not finalized.
 - I cannot really confirm anything specific about integrated graphics yet, but some models of Raphael definitely have integrated graphics.
 - At this time I have no confirmation on 3D Stacking in Raphael, but it is still early.
- Genoa EPYC
 - Initial Genoa Target was a 50% Performance per Watt increase over Milan
 - 96-Core Models Exist with 12-Channel Memory Controllers
 - 128 Lanes of PCIe 5.0 is supported, although I am hearing about troubles with the furthest slots on the motherboard.
 - There will be X30 Zen 4 EPYC Models
 - Lisa Su Confirmed Genoa Launches in 2022
- As of now, Zen 4 is expected to launch in Quarter 3 2022. Shortages and designing most of Zen 4 during the Pandemic have delayed things 1-2 quarters.
 - Now that there's basically no chance of any paper launches around December, I wouldn't even tease Zen 4 in 2021 if I was AMD unless Alder Lake ends up beating Zen 3.
 - There is a narrow chance Zen 4 could launch in Q2...but there is also a narrow chance it could slip to Q4.
 - AM5 could launch early 2022 with Rembrandt APUs
 - It has been suggested that Zen 5 should follow after Zen 4 more quickly (like Zen 3 from Zen 2)



Per quanto riguarda la piattaforma stessa, le nuove schede madri saranno equipaggiate con il socket LGA↔ 1718 che, come da tradizione AMD, sarà destinato a durare un bel po' di tempo.