

Name	AMD Ryzen™ 9 9950X3D2 Dual Edition
Family	Ryzen
Series	Ryzen 9000 Series
Form Factor	Desktops , Boxed Processor
Market Segment	Enthusiast Desktop
Regional Availability	Global
Former Codename	Granite Ridge AM5
Processor Architecture	Zen 5
# of CPU Cores	16
Multithreading (SMT)	Yes
# of Threads	32
Max. Boost Clock ⓘ	Up to 5.6 GHz
Base Clock ⓘ	4.3 GHz
L1 Cache	1280 KB
L2 Cache	16 MB
L3 Cache	192 MB
Default TDP	200W
Processor Technology for CPU Cores	TSMC 4nm FinFET
Processor Technology for I/O Die	TSMC 6nm FinFET
Package Die Count	3
Unlocked for Overclocking ⓘ	Yes
AMD EXPO™ Memory Overclocking Technology	Yes
Precision Boost Overdrive	Yes
Curve Optimizer Voltage Offsets	Yes
AMD Ryzen™ Master Support	Yes
CPU Socket	AM5
Supporting Chipsets	A620 , X670E , X670 , B650E , B650 , X870E , X870 , B840 , B850
CPU Boost Technology	Precision Boost 2
Instruction Set	x86-64
Supported Extensions	AES , AVX512 , AVX2 , AVX , FMA3 , MMX-plus , SSE2 , SSE4.2 , SSE4A , SSE4.1 , SSE3 , SSSE3 , SSE , x86-64
Thermal Solution (PIB)	Not Included
Recommended Cooler	Liquid cooler recommended for optimal performance
Max. Operating Temperature (Tjmax)	95°C