Name	AMD Ryzen™ 5 9500F
Family	Ryzen
Series	Ryzen 9000 Series
Form Factor	Desktops
Market Segment	Enthusiast Desktop
Regional Availability	Global
Former Codename	Granite Ridge AM5
Processor Architecture	Zen 5
# of CPU Cores	6
Multithreading (SMT)	Yes
# of Threads	12
Max. Boost Clock	Up to 5 GHz
Base Clock	3.8 GHz
L1 Cache	480 KB
L2 Cache	6 MB
L3 Cache	32 MB
Default TDP	65W
Processor Technology for CPU Cores	TSMC 4nm FinFET
Processor Technology for I/O Die	TSMC 6nm FinFET
Package Die Count	2
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 , AMD-V , AVX , AVX2 , AVX512 , FMA3 , MMX-plus , SHA , SSE , SSE2 , SSE3 , SSSE3 , SSE4.1 , SSE4.2 , SSE4A , x86-64
Thermal Solution (PIB)	AMD Wraith Stealth
Max. Operating Temperature (Tjmax)	95°C
Launch Date	9/8/25
***OS Support**	Windows 11 - 64-Bit Edition , Windows 10 - 64-Bit Edition , RHEL x86 64-Bit , Ubuntu x86 64-Bit

Connectivity

Native USB 3.2 Gen 2 (10Gbps)	4
Native USB 2.0 (480Mbps)	1
PCI Express® Version	PCIe® 5.0
Native PCIe® Lanes (Total/Usable)	28 , 24
NVMe Support	Boot , RAID0 , RAID1 , RAID5 , RAID10
System Memory Type	DDR5
Memory Channels	2
Max. Memory	192 GB
System Memory Subtype	UDIMM
Max Memory Speed	**2x1R** DDR5-5600 **2x2R** DDR5-5600 **4x1R** DDR5-3600 **4x2R** DDR5-3600
ECC Support	Yes (Requires mobo support)

Graphics Capabilities

Graphics Model	Discrete Graphics Card Required

Product IDs

Product ID Tray	100-000001406

Key Features

Supported Technologies	AMD EXPO™ Technology , AMD Ryzen™ Technologies