AMD Ryzen™ 5 7600X

General Speci cations

Platform:	Desktop
Market Segment:	Enthusiast Desktop
Product Family:	AMD Ryzen™ Processors
Product Line:	AMD Ryzen™ 5 Desktop Processors
AMD PRO Technologies:	No
Consumer Use:	Yes
Regional Availability:	Global
Former Codename:	"Raphael AM5"
Architecture:	"Zen 4"
# of CPU Cores:	6
Multithreading (SMT):	Yes
# of Threads:	12
Max. Boost Clock :	Up to 5.3GHz
Base Clock:	4.7GHz

L1 Cache:	384KB
L2 Cache:	6MB
L3 Cache:	32MB
Default TDP:	105W
Processor Technology for CPU Cores:	TSMC 5nm FinFET
Processor Technology for I/O Die:	TSMC 6nm FinFET
CPU Compute Die (CCD) Size:	71mm²
I/O Die (IOD) Size:	122mm²
Package Die Count:	2
Unlocked for Overclocking 〓:	Yes
AMD EXPO™ Memory Overclocking Technology:	Yes
Precision Boost Overdrive:	Yes
Curve Optimizer Voltage O sets:	Yes
AMD Ryzen™ Master Support:	Yes
CPU Socket:	AM5
Supporting Chipsets:	X670E X670 B650E B650
CPU Boost Technology:	Precision Boost 2
Instruction Set:	x86-64
Supported Extensions:	AES, AMD-V, AVX, AVX2, AVX512, FMA3, MMX(+), SHA, SSE, SSE2, SSE3, SSE4.1, SSE4.2, SSE4A, SSSE3, x86-64

Thermal Solution (PIB):	Not included
Max. Operating Temperature (Tjmax):	95°C
Launch Date:	9/27/2022
*OS Support:	Windows 11 - 64-Bit Edition Windows 10 - 64-Bit Edition RHEL x86 64-Bit Ubuntu x86 64-Bit *Operating System (OS) support will vary by manufacturer.

Connectivity

USB Type-C® Support:	Yes	
Native USB 3.2 Gen 2 (10Gbps) Ports:	4	
Native USB 3.2 Gen 1 (5Gbps) Ports:	0	
Native USB 2.0 (480Mbps) Ports:	1	
Native SATA Ports:	0	
Native PCIe® Lanes (Total/Usable):	28/24	
Additional Usable PCIe Lanes from Motherboard:	**AMD X670E**	12x Gen4
	AMD X670	12x Gen4
	AMD B650E	8x Gen4
	AMD B650	8x Gen4
NVMe Support:	Boot, RAID0, RAID1, RAID10	
Memory Channels:	2	
Max. Memory:	128GB	
System Memory Subtype:	UDIMM	

Max Memory Speed:	**1x1R**	5200 MT/s
ECC Support:	Yes (Requires mobo support)	

Graphics Capabilities

Integrated Graphics:	Yes
Graphics Model:	AMD Radeon™ Graphics
Graphics Core Count:	2
Graphics Frequency:	2200 MHz
GPU Base:	400 MHz
USB Type-C® DisplayPort™ Alternate Mode:	Yes

Product IDs

Product ID Boxed:	100-100000593WOF
Product ID Tray:	100-000000593

Key Features

Supported Technologies:	AMD EXPO™ Technology AMD Ryzen™ Technologies