AMD Ryzen™ 9 7940HS

GENERAL SPECIFICATIONS
CONNECTIVITY
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PRODUCT IDS
SECURITY, VIRTUALIZATION, AND MANAGEABILITY

General Specifications

Platform:	Laptop
Product Family:	AMD Ryzen™ Processors
Product Line:	AMD Ryzen™ 9 Processors with Radeon™ Graphics
AMD PRO Technologies:	No
Consumer Use:	Yes
Regional Availability:	China
Former Codename:	"Phoenix"
Architecture:	"Zen 4"
# of CPU Cores:	8
Multithreading (SMT):	Yes
# of Threads:	16
Max. Boost Clock:	Up to 5.2GHz
Base Clock:	4.0GHz
L1 Cache:	512KB
L2 Cache:	8MB
L3 Cache:	16MB
Default TDP:	35-54W
AMD Configurable TDP (cTDP):	35-54W
Processor Technology for CPU Cores:	TSMC 4nm FinFET
CPU Compute Die (CCD) Size:	178mm^2
Package Die Count:	1
Unlocked for Overclocking[3]:	No
AMD EXPO™ Memory Overclocking Technology:	Yes
Precision Boost Overdrive:	Yes
Curve Optimizer Voltage Offsets:	Yes
CPU Socket:	FP7 FP7r2 FP8
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
Max. Operating Temperature (Tjmax):	100°C
***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

Native USB 4 (40Gbps) Ports:	2	
Native USB 3.2 Gen 2 (10Gbps) Ports:	2	
Native USB 2.0 (480Mbps) Ports:	4	
PCI Express® Version:	PCIe® 4.0	
Native PCIe® Lanes (Total/Usable):	20/20	
NVMe Support:	Boot, RAID0, RAID1, RAID10	
System Memory Type:	DDR5 (FP7r2) LPDDR5/x (FP7, FP8)	
Memory Channels:	2	
Max. Memory:	256GB	
System Memory Subtype:	UDIMM	
Max Memory Speed:	**4x2R** **4x2R**	DDR5-5600 LPDDR5x-7500
ECC Support:	Yes (FP7r2 only; Requires platform support)	

Graphics Capabilities

Integrated Graphics:	Yes
Graphics Model:	AMD Radeon™ 780M
Graphics Core Count:	12
Graphics Frequency:	3000 MHz
DirectX® Version:	12
DisplayPort™ Version:	2.1
DisplayPort Extensions:	HDR Metadata Adaptive-Sync UHBR10
DisplayPort Max Refresh Rates (SDR):	7680x4320 @ 60Hz 3840x2160 @ 240Hz 3440x1440 @ 360Hz 2560x1440 @ 480Hz 1920x1080 @ 600Hz
DisplayPort Max Refresh Rates (HDR):	7680x4320 @ 60Hz 3840x2160 @ 240Hz 3440x1440 @ 360Hz 2560x1440 @ 480Hz 1920x1080 @ 600Hz
HDMI® Version:	2.1
HDCP Version Supported:	2.3
USB Type-C® DisplayPort™ Alternate Mode:	Yes
Multi-Monitor Support:	Yes
Max Displays:	4
AMD FreeSync™:	Yes
Wireless Display:	Miracast
Max Video Encode Bandwidth (SDR):	1080p630 8bpc H.264 1440p373 8bpc H.264 2160p175 8bpc H.264 1080p630 8bpc H.265 1440p373 8bpc H.265 2160p175 8bpc H.265 4320p43 8bpc H.265 1080p864 8/10bpc AV1 1440p513 8/10bpc AV1 2160p240 8/10bpc AV1 4320p60 8/10bpc AV1
Max Video Decode Bandwidth:	1080p60 8bpc MPEG2 1080p60 8bpc VC1 1080p786 8/10bpc VP9 2160p196 8/10bpc VP9 4320p49 8/10bpc VP9 1080p1200 8bpc H.264 2160p300 8bpc H.264 4320p75 8bpc H.264 1080p786 8/10bpc H.265 2160p196 8/10bpc H.265 4320p49 8/10bpc H.265 1080p960 8/10bpc AV1 2160p240 8/10bpc AV1 4320p60 8/10bpc AV1
AMD SmartShift MAX:	Yes
AMD SmartAccess Memory:	Yes

Product IDs

Product ID Tray:	100-000000954 (FP7r2) 100-000000963 (FP7) 100-000001128 (FP8)

Security, Virtualization, and Manageability

AMD Enhanced Virus Protection (NX bit):	Yes

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