NVIDIA GeForce RTX 4080 SUPER – Product Datasheet

The NVIDIA GeForce RTX 4080 SUPER is a high-performance GPU built on the Ada Lovelace architecture, designed for demanding 4K gaming, advanced content creation, and AI-accelerated workloads. It features 10,240 CUDA cores, next-generation Tensor Cores, advanced RT Cores, and boost clock speeds up to 2.55 GHz, delivering exceptional ray tracing, rendering performance, and AI-powered graphics acceleration. Equipped with 16GB of high-speed GDDR6X memory and a 256-bit interface, it provides massive bandwidth for large 3D environments, high-resolution textures, simulations, and professional rendering pipelines. With DLSS 3.5, Ray Reconstruction, PCIe 4.0, AV1 encoding, and superior power efficiency, the RTX 4080 SUPER is ideal for gaming PCs, professional workstations, and GPU-accelerated applications requiring high-end performance.

Technical Specifications

Architecture	NVIDIA Ada Lovelace
CUDA Cores	10,240
Tensor Cores	4th Generation
RT Cores	3rd Generation
Base Clock	2.21 GHz
Boost Clock	Up to 2.55 GHz
Memory	16GB GDDR6X
Memory Interface	256-bit
Memory Bandwidth	736 GB/s
PCI Express	PCIe 4.0 x16
TDP	320W
Recommended PSU	750W
Power Connector	12VHPWR
Display Outputs	HDMI 2.1a + 3× DisplayPort 1.4a
Video Encoder	Dual AV1
Maximum Resolution	Up to 8K (7680×4320)
Cooling Requirements	Triple■fan recommended (varies by AIB design)
Form Factor	2–3 slot (varies by manufacturer)
Supported APIs	DirectX 12 Ultimate, Vulkan, OpenGL 4.6
Applications	4K Gaming, VR, 3D Rendering, AI Inference, Video Editing, Simulation