



## GPU Compute Capabilities

### Release 2023 R2

CUDA (Compute Unified Device Architecture) is a parallel computing platform and application programming interface (API) developed by NVIDIA. The NVIDIA OptiX application framework utilizes RT Cores for performing ray tracing on GPUs.

Because the Speos GPU Solvers are contingent upon CUDA (11.0 or newer), only NVIDIA graphics processing units (GPUs) are supported by Speos GPU solvers. The GPU solver supports most NVIDIA Tesla and NVIDIA Quadro series GPUs as well as GPUs listed on the *Ansys 2023 R2 - GPU Accelerator Capabilities* support table.

The cards listed below have been tested by Ansys, Inc. to verify support of the GPU to process certain calculations and key solver computations for faster performance during a solution.

- Compute capabilities are available for both Windows and Linux.

Speos is best optimized on RTX GPUs because it supports RT-core acceleration.

### Cards Tested

The performance benefit of using a GPU Accelerator will depend on the card selected and the overall system configuration.

Application	Manufacturer	Product Series	Card / GPU	Tested Platform	Tested Operating System Version	Notes	
Speos GPU Solver	NVIDIA	Quadro	GV 100	Windows x64	Windows 10		
					Windows 11		
				Linux x64	Centos 7.9		
					Red Hat 8.5		
			P5200	Windows x64	Windows 10		
					Windows 11		
			P6000	Windows x64	Windows 11	Windows Server 2016	
						Windows Server 2019	
						CentOS 7.9	
					Linux x64	CentOS 7.9	

Speos  
GPU Solver

Quadro RTX

A2000	Windows x64	Windows 10
A4000	Windows x64	Windows 10
		Windows 11
A5000	Linux x64	CentOS 7.9
	Windows x64	Windows 10
A5500		Windows 11
	Linux x64	Centos 8.5
A6000	Windows x64	Windows 10
4000	Windows x64	Windows 10
	Linux x64	Ubuntu 20.04
5000		Windows 11
		CentOS 8.5
		Red Hat 8.5
6000	Windows x64	Windows 10
		Windows 11
6000 Ada	Windows x64	Windows 10
		Windows 11
	Linux x64	CentOS 8.5
8000	Windows x64	Windows 10