



GPU Accelerator Capabilities *

Release 2025 R1

- * Used in support of the CPU to process certain calculations and key solver computations for faster performance during a solution.
- Acceleration can be used for both shared-memory parallel processing (shared-memory Ansys) and distributed-memory parallel processing (Distributed Ansys).
 - Acceleration is available for both Windows and Linux.

Support by Application

AVxcelerate supports NVIDIA's CUDA-enabled series workstation and server cards.

Ansys EMIT and **EMIT Classic** support NVIDIA CUDA-enabled workstation, data center and server cards.

HFSS Frequency-domain and Time-domain solvers support NVIDIA CUDA-enabled workstation, data center, and server cards.

HFSS SBR+ solver supports NVIDIA CUDA-enabled workstation, data center, and server cards.

ICEPAK supports NVIDIA's CUDA-enabled workstation, data center, and server cards.

Maxwell solvers support NVIDIA CUDA-enabled workstation, data center, and server cards.

Mechanical APDL supports the AMD Instinct MI Series Accelerators and NVIDIA's CUDA-enabled workstation, data center, and server cards.
When using the sparse solver or eigen solvers based on the sparse solver with NVIDIA cards additional considerations apply (please consult the ANSYS installation guide for details).

Polyflow supports NVIDIA's CUDA-enabled workstation, data center, and server cards.

Cards Tested **

The following cards have been tested by ANSYS, Inc.

Application	Manufacturer	Card / GPU	Tested Platform	Tested Operating System Version	Notes
AVxcelerate	NVIDIA	P5000	Windows x64	Windows 10	
		P6000	Windows x64	Windows 10	
		RTX 5000 Ada Laptop	Windows x64	Windows 11	
		RTX 6000	Windows x64	Windows 10	
			Linux x64	Ubuntu 22.04	
		RTX 8000	Windows x64	Windows 10	
			Linux x64	Ubuntu 22.04	
		RTX A5000	Linux x64	Ubuntu 20.04	
		RTX A6000	Windows x64	Windows 10	
				Windows 11	
				Linux x64	Ubuntu 20.04
		RTX A5000 Laptop	Windows x64	Windows 11	
RTX A5500 Laptop	Windows x64	Windows 11			

Application	Manufacturer	Card / GPU	Tested Platform	Tested Operating System Version	Notes
EMIT and EMIT Classic	NVIDIA	Ampere A100	Windows x64	Windows Server 2019	
		A6000	Windows x64	Windows Server 2019	
		GP100	Windows x64	Windows 10	
		GV100	Windows x64	Windows 10	
		RTX 6000	Windows x64	Windows Servers 2019	
		RTX 8000	Windows x64	Windows 10	
		Tesla P40	Windows x64	Windows Server 2019	
		Tesla P100	Windows x64	Windows Server 2016	
		Tesla V100	Windows x64	Windows Server 2019	
HFSS Frequency-domain solver Time-domain solver SBR+ solver	NVIDIA	A100	Windows x64	Windows Server 2019	
				Windows Server 2022	
			Linux x64	Red Hat 9.4	
				Ubuntu 20.04	
		GV100	Linux x64	Ubuntu 20.04	
		H100	Windows x64	Windows Server 2022	
		P40	Windows x64	Windows Server 2022	
		P100	Windows x64	Windows Server 2022	
			Linux x64	Rocky 8.9	
		RTX 6000	Windows x64	Windows Server 2019	
			Linux x64	Red Hat 8.10	
		RTX A6000	Windows x64	Windows Server 2019	
		V100	Windows x64	Windows Server 2019	
Linux x64	Ubuntu 20.04				

Application	Manufacturer	Card / GPU	Tested Platform	Tested Operating System version	Notes
Icepak	NVIDIA	8000P-8Q	Windows x64	Windows 11 Enterprise	
		A100	Windows x64	Windows Server 2019	
				Windows Server 2022	
		A100-PCIE	Linux x64	Red Hat 9.4	
		A2000	Windows x64	Windows 10 Enterprise	
		A6000	Windows x64	Windows Server 2019	
		RTX 6000	Windows x64	Windows Server 2019	
			Linux x64	SLES 15.4	
		Red Hat 8.10			
		RTX A6000	Linux x64	Red Hat 9.3	
Maxwell	NVIDIA	A100	Windows x64	Windows Server 2019	
				Windows Server 2022	
			Linux x64	Red Hat 9.4	
				Ubuntu 20.04	
		GV100	Linux x64	Ubuntu 20.04	
		H100	Windows x64	Windows Server 2022	
		P40	Windows x64	Windows Server 2022	
		P100	Windows x64	Windows Server 2022	
			Linux x64	Rocky 8.9	
		RTX 6000	Windows x64	Windows Server 2019	
			Linux x64	Red Hat 8.10	
		RTX A6000	Windows x64	Windows Server 2019	
V100	Windows x64	Windows Server 2019			
	Linux x64	Ubuntu 20.04			

Application	Manufacturer	Card / GPU	Tested Platform	Tested Operating System version	Notes	
Mechanical APDL	AMD	MI100	Linux x64	Red Hat 8.9		
				Red Hat 9.3		
	NVIDIA	MI210	Linux x64	SLES 15.5		
					A100	Windows x64
		H100	Windows x64	Windows Server 2022		
					Linux x64	Red Hat 8.10
		RTX A6000	Windows x64	Windows 10		
					RTX A6000 Ada Lovelace	Linux x64
Polyflow	NVIDIA	A40-8Q	Windows x64	Windows Server 11		
			Linux x64	Rocky 8.10		
	NVIDIA	A100 Dual	Windows x64	Windows Server 2022		
					L40 Dual	Linux x64
		T4-8Q	Windows x64	Windows 10		
					Linux x64	SLES 15.5
		RTX A6000	Linux x64	Red Hat 8.10		
					RTX 8000P-8Q	Linux x64

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