

Graphics Boards for *hyperMILL*®

System requirements: graphics engine requires an OpenGL accelerated graphics display driver. Latest generation of GPU with OpenGL 4.0 or higher is recommended.

Windows don't supply OpenGL accelerated drivers out of the box. End users will need to install drivers from OEM or manufacturers in order to access native hardware-accelerated OpenGL. These drivers can be found on the web sites of most hardware manufacturers.

The following table gives the list of graphic cards and display driver suggested. **Please note:** This does not mean that *hyperMILL*® can only run on these specific systems. These are only the systems that are currently running automated test or are currently used in daily work. *hyperMILL*® should run on any graphics system that supports a complete implementation of OpenGL.

Reference driver can be installed on notebook GPUs. However, please note that your notebook original equipment manufacturer (OEM) provides drivers for your specific notebook on their website. Please check with your notebook OEM about recommended software updates for your notebook.

On system with two graphic boards select the accelerated GPU (AMD/NVIDIA) instead of the integrated one, from the relative display control panel. With NVIDIA Quadro/RTX board we recommend to use the "Workstation app - dynamic streaming" or the "3D App - Visual Simulation" profiles from the NVIDIA control panel.

Windows update may change the display driver or video card settings without any notification. We recommend checking after the Windows update. The hyperCAD-S\<version>\systemchecktool.exe application may help you to identify problems.

The recommended graphics drivers do not consider the connection of additional peripheral devices. Connected devices can affect the quality and performance of the graphics card. Therefore OPEN MIND Technologies recommends to contact the hardware manufacturer in these cases. All liability is excluded, all information is given without guarantee of being complete, correct and up-to-date.

Brand	Year	Series	Product	Windows 10	Windows 11
Quadro / RTX desktop workstation	2014	Kepler	K620		
			K1200	472.84	472.84
			K2200	517.40	517.40
			K4200	528.49	528.49
			K5200		
	2015	Maxwell	M2000	472.84	472.84
			M4000	517.40	517.40
			M5000	528.49	528.49
			M6000		
	2017	Pascal	P400		
			P600		
			P1000	472.84	472.84
			P2000	517.40	517.40
			P4000	528.49	528.49
			P5000		
			P6000		
			GP100		
	2018	Pascal	P620	472.84	472.84
			P2200	517.40	517.40
			P5200	528.49	528.49
			GV100		
	2019	Turing	RTX 3000		
			RTX 4000	472.84	472.84
			RTX 5000	517.40	517.40
			RTX 6000	528.49	528.49
			RTX 8000		
	2021	Turing	T400	472.84	472.84
			T600	517.40	517.40
T1000			528.49	528.49	
2021	Ampere	RTX A2000	472.84	472.84	
		RTX A4000	517.40	517.40	
		RTX A5000	528.49	528.49	
		RTX A6000			
2022	Ampere	RTX A4500	517.40	517.40	
		RTX A5500	528.49	528.49	
2023	Ada Lovelace	RTX 4000	528.49	528.49	
		RTX 6000	536.25	536.25	

Brand	Year	Series	Product	Windows 10	Windows 11
NVIDIA Quadro / RTX notebook	2014	Kepler	K1100M	376.84	
			K2100M		
			K3100M		
			K4100M		
			K5100M		
	2014	Kepler	K2200M	472.84, 517.40, 528.49	472.84, 517.40, 528.49
	2015	Maxwell	M500M	472.84	472.84
			M600M		
			M1000M		
			M2000M		
			M3000M		
			M4000M		
	M5000M				
	2016	Maxwell	M620	472.84	472.84
			M1200	517.40	517.40
			M2200	528.49	528.49
	2017	Pascal	P600	472.84	472.84
			P1000		
			P2000		
			P3000		
			P4000		
			P5000		
	2018	Pascal	P3200	472.84	472.84
			P4200	517.40	517.40
			P5200	528.49	528.49
	2019	Turing	T1000	472.84	472.84
			T2000	517.40	517.40
	2020	Turing	RTX 3000	528.49	528.49
			RTX 4000	472.84	472.84
			RTX 5000	517.40	517.40
			RTX 6000	528.49	528.49
	2021	Turing	T500 / T550	472.84	472.84
T600			517.40	517.40	
T1200			528.49	528.49	
2021-2022	Ampere	RTX A1000	472.84	472.84	
		RTX A2000			
		RTX A3000			
		RTX A4000			
		RTX A5000			
2022	Ampere	RTX A4500	517.40	517.40	
		RTX A5500	528.49	528.49	
2023	Ada Lovelace	RTX 2000	536.25	536.25	
		RTX 3000			
		RTX 3500			
		RTX 4000			
		RTX 5000			
Brand	Year	Series	Product	Windows 10	Windows 11
GeForce desktop / notebook	2014	Kepler	GTX 750	372.70	471,68
			GTX 760		
			GTX 770		
			GTX 780		
			GTX TITAN		
	2015	Maxwell	GTX 950	372.70	471,68
			GTX 960	398.36	
			GTX 970	430.86	
			GTX 980	442.19	
			GTX TITAN X	471.68	
	2016-2017	Pascal	GTX 1050	471.68	471.68
			GTX 1060	472.84	472.84
			GTX 1070 / Ti	517.40	517.40
			GTX 1080 / Ti	528.49	528.49
			TITAN XP	528.49	528.49
	2018-2019	Turing	RTX 2060	471.68	471.68
			RTX 2070	472.84	472.84
RTX 2080 / Ti			517.40	517.40	
TITAN RTX			528.49	528.49	
RTX 3050 / Ti			471.68	471.68	

	2020-2022	Ampere	RTX 3060 / Ti	771.00	771.00
			RTX 3070 / Ti	472.84	472.84
			RTX 3080 / Ti	517.40	517.40
			RTX 3090 / Ti	528.49	528.49
	2023	Ada Lovelace	RTX 4050	528.49	528.49
			RTX 4060		
			RTX 4070		
			RTX 4080		
			RTX 4090		

	Brand	Year	Series	Product	Windows 10	Windows 11
AMD - ATI	FirePro desktop workstation	2014	W	W600	15.301.2601 18Q1 - 23.20.15018.16 20Q1 - 26.20.14001.22011 20Q3 - 27.20.1027.2005	
				W5000		
				W7000		
				W8000		
				W9000		
		2015	W	W2100	15.301.2601 18Q1 - 23.20.15018.16 20Q1 - 26.20.14001.22011 20Q3 - 27.20.1027.2005	
				W4100		
				W5100		
				W7100		
				W8100		
	Radeon Pro / workstation	2017	WX	WX 2100	21Q4 - 30.0.14011.2006 22Q2 - 30.0.21020.2	21Q4 - 30.0.14011.2006 22Q2 - 30.0.21020.2
				WX 3100		
				WX 4100		
				WX 5100		
				WX 7100		
				WX 9100		
		2019	WX	WX 3200	21Q4 - 30.0.14011.2006 22Q2 - 30.0.21020.2	21Q4 - 30.0.14011.2006 22Q2 - 30.0.21020.2
				WX 8200		
		2020	W	W 5500	21Q4 - 30.0.14011.2006 22Q2 - 30.0.21020.2	21Q4 - 30.0.14011.2006 22Q2 - 30.0.21020.2
				W 5700		
		2021-2022	W	W 6400	21Q4 - 30.0.14011.2006 22Q2 - 30.0.21020.2	21Q4 - 30.0.14011.2006 22Q2 - 30.0.21020.2
				W 6600		
				W 6800		
	Radeon desktop workstation	2015	R9	270	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 19.5.2 - 26.20.11015.5009 Adrenalin 20.4.2 - 26.20.15029.27017	
				280		
				290		
				380		
				390		
2016		RX 400	460	Adrenalin 19.5.2 - 26.20.11015.5009 Adrenalin 20.4.2 - 26.20.15029.27017 Adrenalin 21.8.2 - 27.20.22025.1006 Adrenalin 22.2.1 - 30.0.14023.7007	Adrenalin 22.2.1 - 30.0.14023.7007	
			470			
			480			
2018		RX 500	550	Adrenalin 19.5.2 - 26.20.11015.5009 Adrenalin 20.4.2 - 26.20.15029.27017 Adrenalin 21.8.2 - 27.20.22025.1006 Adrenalin 22.2.1 - 30.0.14023.7007	Adrenalin 22.2.1 - 30.0.14023.7007	
			560			
			580			
			590			
2019		VEGA	VEGA Series	Adrenalin 20.4.2 - 26.20.15029.27017 Adrenalin 21.8.2 - 27.20.22025.1006 Adrenalin 22.2.1 - 30.0.14023.7007	Adrenalin 22.2.1 - 30.0.14023.7007	
2020		RX 5000	5500	Adrenalin 20.4.2 - 26.20.15029.27017 Adrenalin 21.8.2 - 27.20.22025.1006 Adrenalin 22.2.1 - 30.0.14023.7007	Adrenalin 22.2.1 - 30.0.14023.7007	
			5600			
	5700					
2021	RX 6000	6500	Adrenalin 21.8.2 - 27.20.22025.1006 Adrenalin 22.2.1 - 30.0.14023.7007	Adrenalin 22.2.1 - 30.0.14023.7007		
		6600				
		6700				
		6800				
			6900			