



NVIDIA PROFESSIONAL GRAPHICS SOLUTIONS

The new family of advanced NVIDIA professional graphics is fueled by NVIDIA Kepler™—NVIDIA's most powerful GPU architecture ever—delivering unprecedented performance and innovative capabilities to boost your success. Whether you're creating revolutionary products, designing groundbreaking architecture, reviewing the fine details in a CT/MRI scan, or telling spectacularly vivid visual stories, NVIDIA professional solutions let you do it better and faster.



NVIDIA® Quadro® 3D Workstation Professional Graphics Solutions

Designed and built specifically for professional workstations, NVIDIA Quadro GPUs power more than 150 professional applications across a broad range of industries. Professionals trust them to deliver the best possible experience in applications such as Adobe® Creative Suite, Avid Media Composer, Autodesk Inventor, Dassault Systemes CATIA and SolidWorks, Siemens NX, PTC Creo, and many more.



NVIDIA® Tesla® Co-Processors

NVIDIA Tesla GPU parallel processors provide the highest-performance NVIDIA CUDA® acceleration for your workflow. Designed for professional systems and demanding professional applications, Tesla GPUs perform the complex calculations required for CAE/CFD calculations, seismic processing, ray-traced rendering, compositing, image processing, physics, and effects many times faster than a CPU.



NVIDIA® Maximus™ Platform

NVIDIA Maximus-powered workstations combine the industry-leading professional 3D graphics capability of NVIDIA Quadro GPUs with the high-performance computing power of NVIDIA Tesla GPUs. Tesla co-processors automatically perform the heavy lifting of rendering or CAE computations, freeing the Quadro GPUs to do what they do best—enabling rich interactive graphics.



NVIDIA® NVS™ Commercial Graphics Solutions

NVIDIA NVS graphics boards provide robust IT management tools for seamless enterprise deployment. This makes them the trusted solution of choice financial institutions, emergency call centers, digital signage systems, and other mission-critical environments.

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GPU SPECIFICATIONS			PERFORMANCE			DISPLAY TECHNOLOGY										OPTIONS			
NVIDIA® CUDA® Processing Cores ¹	GPU Memory	Memory Bandwidth	Floating-Point Performance-Single Precision (Gigaflops, Peak)	Floating-Point Performance-Double Precision (Gigaflops, Peak)	Error Correcting Code (ECC) Memory	Dual-Link DVI ²	DisplayPort 1.1 ³	DisplayPort 1.2 ³	HDMI Via Adaptors	Maximum Active Displays ⁴	FSAA (Maximum)	NVIDIA® FXAA™ Antialiasing	NVIDIA® TXAA™ Antialiasing	NVIDIA® SLI®	NVIDIA Quadro® Mosaic Technology	GPU Direct™ for Video	Graphics Synchronization ⁵	NVIDIA 3D Vision® /3D Vision Pro ⁶	NVIDIA Maximus™ -Enabled ⁷

Quadro for Desktop Workstations

NEW	Quadro K5000	1,536	4 GB	173 GBps	2,150		• ⁸	2	2	4	4	64x	•	•	•	•	•	•	•
	Quadro K5000 for Mac	1,536	4 GB	173 GBps	2,150		• ⁸	2	2 ⁹	4	4	64x	•	•	•	•	•	•	•
	Quadro K4000	768	3 GB	134 GBps	1,246			1	2	3	4	64x	•	•	•	•	•	•	•
	Quadro K2000	384	2 GB	64 GBps				1	2	3	4	64x	•	•	•	•	•	•	•
	Quadro K2000D	384	2 GB	64 GBps				2	1	3	4	64x	•	•	•	•	•	•	•
	Quadro K600	192	1 GB	29 GBps				1	1	2	2	64x	•	•	•	•	•	•	•
	Quadro 410	192	512 MB	14 GBps				1	1	2	2	32x	•	•	•	•	•	•	•
	Quadro 6000	448	6 GB	144 GBps	1,030	515	•	1	2	2	2	64x	•	•	•	•	•	•	•
	Quadro 5000	352	2.5 GB	120 GBps	718		•	1	2	2	2	64x	•	•	•	•	•	•	•
	Quadro 4000	256	2 GB	90 GBps	486			1	2	2	2	64x	•	•	•	•	•	•	•
Quadro 4000 for Mac	256	2 GB	90 GBps	486			1	1	2	2	64x ¹⁰	•	•	•	•	•	•	•	
Quadro 2000	192	1 GB	42 GBps				1	2	2	2	64x	•	•	•	•	•	•	•	
Quadro 2000D	192	1 GB	42 GBps				2		2	2	64x	•	•	•	•	•	•	•	
Quadro 600	96	1 GB	26 GBps				1	1	2	2	64x	•	•	•	•	•	•	•	

Tesla for Desktop Workstations (Co-Processors as Part of NVIDIA Maximus Platform)

Tesla K20	2,496	5 GB	208 GBps	3,520	1,170	•											•	•
Tesla C2075	448	6 GB	144 GBps	1,030	515	•	1				1						•	•

Quadro for Mobile and All-in-One Workstations

NEW	Quadro K5000M	1,344	4 GB	96 GBps	1,600		• ⁸	• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•
	Quadro K4000M ¹¹	960	4 GB	90 GBps	1,150			• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•
	Quadro K3000M ¹¹	576	2 GB	90 GBps	750			• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•
	Quadro K2000M	384	2 GB	29 GBps	575			• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•
	Quadro K1000M	192	2 GB	29 GBps				• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•
	Quadro K500M	192	1 GB	13 GBps				• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•
	Quadro 5010M	384	4 GB	83 GBps			•	• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•
	Quadro 4000M ¹¹	336	2 GB	80 GBps				• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•
	Quadro 3000M ¹¹	240	2 GB	80 GBps				• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•
	Quadro 2000M	192	2 GB	29 GBps				• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•
Quadro 1000M ¹¹	96	2 GB	29 GBps				• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•	
Quadro 500M ¹²	96	1 GB	29 GBps				• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•	

NVS for Desktop Workstations

NEW	NVS 510	192	2 GB	29 GBps					4	4	4						•	•
	NVS 310	48	512 MB	14 GBps					2	2	2						•	•
	NVS 300 x16 or x1	16	512 MB	13 GBps				2 ¹⁴	2 ¹⁴	2	2						•	•
	Quadro NVS 450	16	512 MB	11 GBps ¹⁵				4	4	4	4						•	•
	Quadro NVS 420 x16 or x1	16	512 MB	11 GBps ¹⁵				4 ¹⁶	4	4	4						•	•
	Quadro NVS 295 x16 or x1	8	256 MB	11 GBps				2	2	2	2						•	•

For more information on NVIDIA NVS mobile solutions, please visit

www.nvidia.com/object/notebook-nvs.html

- CUDA parallel processing cores cannot be compared between GPU generations due to several important architectural differences that exist between streaming multiprocessor designs.
- Maximum display resolution: 330M Pixels/sec (ex 2560x1600 @ 60Hz or 1920x1200@120Hz)
- Adaptors available for DVI-SL, DVI-DL, HDMI, and VGA

- Quadro K4000, K2000, and K2000D are equipped with 3 on-board display connectors with the option to connect a fourth display using DisplayPort 1.2's new multi-streaming capabilities. 4 Displays require a supported DisplayPort 1.2 Multi-Stream capable hub or displays.
- Quadro K-series GPUs are only compatible with NVIDIA Quadro Sync. Other GPUs listed are compatible only with Quadro G-Sync II.
- Requires 3D Vision-ready display. Visit www.nvidia.com/3dvision

- Quadro K-series GPUs are only compatible with Tesla K20. Other GPUs listed are compatible only with Tesla C2075.
- Ensures data integrity and reliability by eliminating soft errors on DRAM only
- On Mac OS X, DisplayPort 1.2 multi-streaming feature is currently not supported. Also available for All-in-One workstations
- 8x on Mac OS X, 44x on Windows
- Also available for All-in-One workstations

- Available for All-in-One workstations only
- Display support will vary by OEM; please see OEM Mobile Workstation platform specifications for details.
- Supports dual SL-DVI-I/VGA/DP through DM559 connector
- Per GPU memory bandwidth
- Supports quad DP/SL-DVI through VHDCI connector
- For more information on NVIDIA Workstation products, visit www.nvidia.com/workstation

