



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 Cloud, 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. With Maximus, engineers, artists, designers, and scientists can now interact with high-performance visuals while also performing simulations or renderings on the same system.



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

Quadro K6000 New!	2,880	12 GB	288 GBps	5,196	1,732	• ⁸	2	2	4	4	64x	•	•	•	•	•	•	•	•
Quadro K5000	1,536	4 GB	173 GBps	2,150		• ⁹	2	2	4	4	64x	•	•	•	•	•	•	•	•
Quadro K5000 for Mac	1,536	4 GB	173 GBps	2,150		• ⁹	2	2 ¹⁰	4	4	64x	•	•	•	•	•	•	•	•
Quadro K4000	768	3 GB	134 GBps	1,244			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 ¹¹	•	•	•	•	•	•	•	•
Quadro 2000	192	1 GB	42 GBps				1	2	2	2	64x	•	•	•	•	•	•	•	•
Quadro 2000D	192	1 GB	42 GBps				2	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

Quadro K5100M New!	1,536	8 GB	115 GBps	2,350		• ⁹	• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•	•	•
Quadro K4100M New!	1,152	4 GB	102 GBps	1,600			• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•	•	•
Quadro K3100M New!	768	4 GB	102 GBps	1,050			• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•	•	•
Quadro K2100M New!	576	2 GB	48 GBps	750			• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•	•	•
Quadro K1100M New!	384	2 GB	45 GBps	550			• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•	•	•
Quadro K610M New!	192	1 GB	21 GBps	375			• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•	•	•
Quadro K510M New!	192	1 GB	19 GBps	325			• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•	•	•
Quadro K5000M	1,344	4 GB	96 GBps	1,600		• ⁹	• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•	•	•
Quadro K4000M ¹²	960	4 GB	90 GBps	1,150			• ¹³	• ¹³	• ¹³	• ¹³	64x	•	•	•	•	•	•	•	•
Quadro K3000M ¹²	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	•	•	•	•	•	•	•	•

NVS for Desktop Workstations

NVS 510	192	2 GB	29 GBps						4	4	4						•		
NVS 315 New!	48	1 GB	14 GBps						2	2	2						•		
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	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 ¹⁴	4	4	4						•		

1. CUDA parallel processing cores cannot be compared between GPU generations due to several important architectural differences that exist between streaming multiprocessor designs.
 2. Maximum display resolution: 330M Pixels/sec (ex 2560x1600 @ 60Hz or 1920x1200@120Hz)
 3. Adaptors available for DVI-SL, DVI-DL, HDMI, and VGA
 4. 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.
 5. Quadro K-series GPUs are only compatible with NVIDIA Quadro Sync. Other GPUs listed are compatible only with Quadro G-Sync II.
 6. Requires 3D Vision-ready display. Visit www.nvidia.com/3dvision
 7. Quadro K-series GPUs are only compatible with Tesla K20. Other GPUs listed are compatible only with Tesla C2075.

8. Ensures data integrity and reliability by eliminating soft errors on both GPU cache and on-board DRAM
 9. Ensures data integrity and reliability by eliminating soft errors on DRAM only
 10. On Mac OSX, DisplayPort 1.2 multi-streaming feature is currently not supported. Also available for All-in-One workstations
 11. 8x on Mac OSX, 64x on Windows
 12. Also available for All-in-One workstations

13. Display support will vary by OEM; please see OEM Mobile Workstation platform specifications for details.
 14. Supports dual SL-DVI-I/VGA/DP through DM559 connector
 15. Per GPU memory bandwidth
 16. Supports quad DP/SL-DVI through VHDCI connector
 For more information on NVIDIA Workstation products, visit www.nvidia.com/quadro

