



Breakthrough Performance for Media Production Workflows

Dell Precision and AMD FirePro™ ultra high-end graphics deliver world-class performance for graphics-and compute-intensive workflows.

Take your production pipelines to the next level

Dell Precision with AMD FirePro™ graphics take production pipelines to the next level with an abundance of graphics performance, cutting-edge GPU compute power and industry-leading 4K display support. Video and animation artists can take their projects to ultra-high resolutions and beyond without compromising on real-time performance. AMD FirePro™ workstation solutions from Dell unleash the massive compute power of the GPU and accelerate the video editing and rendering process, allowing artists to apply filters and color corrections or process multiple effects in real-time. AMD FirePro™ extends the capabilities of your workstation and takes your projects further, faster.

Leading GPU compute performance from a single GPU

AMD FirePro™ fully supports OpenCL 2.0 and packs up to 5.24 TFLOPS of peak single-precision floating point performance into a desktop workstation form-factor. With such visual supercomputing performance, users can tackle the most complex media projects in ultra-high resolutions and work with multiple graphics-and compute-intensive applications on the same workstation using just one GPU.

The AMD FirePro™ W9100 is the industry's first and only graphics card with 16GB GDDR5 on-board memory and features a 512-bit memory interface for 320 GB/s of memory bandwidth³. This allows large 4K video frames to be loaded first into the graphics card's internal memory and then be sent quickly to the GPU for processing.

This can improve overall workflow speed and responsiveness of the system, especially when working with large amounts of data.

Dell Precision Workstations with AMD FirePro™ graphics deliver world-class performance

Performance excellence for modelling & animation

Dell Precision workstations with AMD FirePro™ graphics are optimized and certified for the leading Modelling & Animation application suites, including Autodesk® 3ds Max® and Maya®, Cinema 4D, Mari and many more.

With up to 3.7 Billion triangles per second and 8 or 16GB of ultra-fast GDDR5 memory, artists can manipulate geometry intense designs with high frame rates and in ultra-high resolution with ease.

In addition, AMD FirePro™ GPUs enable special features not available on consumer graphics cards, such as the 3D Stereo mode in 3ds Max®. Artists can view stereoscopic content directly within the viewport in a range of display modes, including anaglyph, side-by-side, and active stereo – the latter certified only on professional GPUs.



Industry:

Media and Entertainment

Target Workflows:

Modelling & Animation
Non-linear Video Editing
Compositing & Rendering
Color Grading

Certified Applications:

Modelling & Animation

- ▲ Autodesk® 3ds Max® & Maya® *
- ▲ Maxon Cinema 4D *
- ▲ Side Effects Houdini *
- ▲ The Foundry Mari *

Non-linear Video Editing

- ▲ Adobe® Premiere® Pro CC*
- ▲ Adobe® Media Encoder CC*
- ▲ Avid® Media Composer® *
- ▲ Sony Vegas Pro *

Compositing & Rendering

- ▲ AMD FireRender *
- ▲ Autodesk® Photoshop® CC *
- ▲ Autodesk® After Effects® CC *
- ▲ Blackmagic Fusion *
- ▲ Chaos Group V-Ray *
- ▲ The Foundry Nuke *

Color Grading

- ▲ Adobe® SpeedGrade™ CC *
- ▲ Autodesk® Flame®
- ▲ Blackmagic DaVinci Resolve *

*with OpenCL™ 1.1/1.2 support

The AMD FirePro™ Advantage:

- ▲ More than 100 ISV certifications and optimizations
- ▲ GPU-accelerated application performance with OpenCL™
- ▲ 3-year limited warranty and extended availability
- ▲ Highest level of customer support – Customers have the ability to contact the AMD technical team directly

CUTTING-EDGE GRAPHICS PERFORMANCE	INDUSTRY-LEADING GPU COMPUTE POWER	UNPRECEDENTED MEMORY CONFIGURATION	UNLIMITED 4K DISPLAY CAPABILITIES ¹
Up to 2816 Stream Processors	Up to 5.24 TFLOPS Single-precision compute	Choice of 8GB or 16GB GDDR5 GPU Memory	Up to six 4K Displays 10-bit color Low-latency SDII/O FrameLock/Genlock (Requires FirePro™ S400 synch module)
32 GB/s PCI Express 3.0 Bandwidth	Up to 2.62 TFLOPS Double-precision compute	320 GB/s Memory Bandwidth	



GPU-Accelerated media production workflows

As creative professionals work with increasingly higher-resolution media, the pressure on a computer's CPU has never been greater. Dell Precision workstations with AMD FirePro™ graphics deliver up to 5.24 TFLOPS of compute power from a single GPU and assist the CPU with computational-intensive production workflows.

Harness the power of AMD GPU acceleration to help speed up more than 40 effects in Adobe® Premiere® Pro CC. That means less time sitting around waiting and watching the rendering progress bar. Apply color corrections and effects to multiple layers of DV, HD or 4K/5K video and gain feedback on the fly. For more application performance users can simply choose a more capable GPU for their system⁴.

Dell Precision workstations with AMD FirePro™ W8100 graphics are now also certified for Avid® Media® Composer helping editors, designers and visual effects artists to work faster and be more productive in any resolution up to 8K.

GPU-Accelerated rendering with photo realism

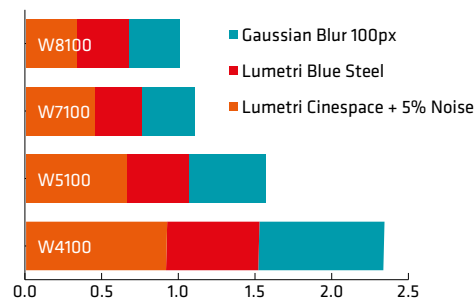
The computational power of AMD FirePro™ GPUs can also be used to accelerate photorealistic rendering applications like V-Ray or AMD FireRender. These workflows benefit from the massive graphics and computational performance delivered by up to 2816 Stream Processors as well as the 16GB of ultra-fast GDDR5 GPU memory available with the AMD FirePro™ W9100 .

In order to ensure that media projects don't get compromised visually when the "pixels hit the screen", FirePro™ W8100 and W9100 graphics cards offer discrete connectivity for four (W8100) or six (W9100) 4K displays via DisplayPort 1.2 and AMD Eyefinity technology¹.

In sum, Dell Precision workstations with AMD FirePro™ W8100 and W9100 GPUs deliver the reliability, innovation and performance to accelerate media production projects beyond just graphics.

AMD FirePro™ Performance Scales¹

1080P Video Encoding With Effects
(Lower is Better)



For more information, visit in amdfireprohub.com/resources/partners/dell/



AMD FireRender Screenshot

AMD FirePro™ W9100 graphics

▲ First graphics card with 16GB GPU memory², now available in Dell Precision Tower 7910 and R7910

AMD FirePro™ W8100 graphics

▲ Add best-in-class GPU Compute to your workstation², available in Dell Precision Tower 5810, 7810, 7910

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1) Requires 4K displays and content; performance dependent on file size. AMD Eyefinity technology supports up to six DisplayPort™ monitors on an enabled graphics card. Supported display quantity, type and resolution vary by model and board design; confirm specifications with manufacturer before purchase. To enable more than two displays, or multiple displays from a single output, additional hardware such as DisplayPort-ready monitors or DisplayPort 1.2 MST-enabled hubs may be required. A maximum of two active adapters is recommended for consumer systems. See www.amd.com/eyefinityfaq for full details.

2) AMD FirePro™ W8100 delivers 2.1 TFLOPS peak double-precision floating point performance, while the closest competing solution from Nvidia (as of August 2015) is the Quadro M5000 which offers only 0.134 TFLOPS (per <http://www.anandtech.com/show/9096/nvidia-announces-quadro-m6000-quadro-vca-2015>). FP-161

3) AMD FirePro™ W9100 features 16GB GDDR5 memory. Nvidia's highest memory card in the market as of August 2015 is the Quadro M6000 with 12GB GDDR5 memory. Visit http://images.nvidia.com/content/quadro/product-literature/line-card/12611_ProGraphicLineCard_GENERIC_JUN15_US_FNL_HR.pdf for Nvidia product specs. FP-146

4) Based on AMD internal testing on Adobe® Premiere® Pro (output settings: 1920x1080, 29.97FPS, Progressive, WMV, VBR, 2 Pass Constrained, Avg 8000.00 kbps, Maximum Render Quality) using a 252MB MP4 file, AMD FirePro graphics cards render and encode time with the Gaussian Blur 100px, Lumetri Blue Steel, and Lumetri Cinespace+5% Noise effects, respectively, as follows: W8100=402/411/399 sec, W7100=420/372/541 sec, W5100=610/487/795 sec, and W4100=988/729/1115 sec. AMD lab test system configuration: workstation with Intel Core i7-4790K @ 4.0GHz, 16Gb DDR3 RAM, Asus Z97 motherboard, Windows 8.1 64-bit, AMD driver 15.20. Media input: 3846x2160 MP4, 23.97 FPS Progressive. Render and export in Adobe Media Encoder. FP-146

5) AMD FirePro™ W8100 graphics card provides the best performance on Adobe Premiere Pro and Media Encoder compared to other AMD FirePro graphics card models. Based on AMD internal testing on Adobe® Premiere® Pro (output settings: 1920x1080, 29.97FPS, Progressive, WMV, VBR, 2 Pass Constrained, Avg 8000.00 kbps, Maximum Render Quality) using a 252MB MP4 file, AMD FirePro graphics cards render and encode time with the Gaussian Blur 100px, Lumetri Blue Steel, and Lumetri Cinespace+5% Noise effects, respectively, as follows: W8100=402/411/399 sec, W7100=420/372/541 sec, W5100=610/487/795 sec, and W4100=988/729/1115 sec. AMD lab test system configuration: workstation with Intel Core i7-4790K @ 4.0GHz, 16Gb DDR3 RAM, Asus Z97 motherboard, Windows 8.1 64-bit, AMD driver 15.20. Media input: 3846x2160 MP4, 23.97 FPS Progressive. Render and export in Adobe Media Encoder. FP-146. SG/10/15 #657

Autodesk screenshot courtesy of Jon Russ - www.jonathanruss.co.uk

