Realistic Design without Compromise

AMD FirePro™ professional graphics is fully certified for SOLIDWORKS.

Greater Realism With GPU Accelerated Features Enabled for SOLIDWORKS® 2015 and 2016 Users

The latest AMD FirePro professional graphics cards were designed for advanced SOLIDWORKS® workflows and simultaneous engineering, combining complex CAD modeling with sophisticated rendering and simulation (CAE). Unlike consumer graphics, the AMD FirePro professional graphics cards provide a number of GPU accelerated features and SOLIDWORKS-specific optimizations, delivering increased realism, outstanding performance and greater interactivity for designers and engineers.

More Accurate Designs with GPU-Accelerated Transparency Mode

Order Independent Transparency (OIT) is available since SOLIDWORKS 2014. OIT provides a "pixel-accurate" representation of the model and its surrounding geometry and delivers significant performance improvement over traditional blended mode because it is accelerated by the AMD FirePro GPU. This creates a more practical transparent 3D viewpoint for designers to continuously work within, helping improve the user's sense of "design intuition" and aid in better decision-making throughout the product development stages.
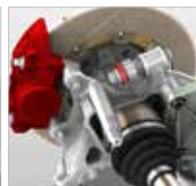
Classic Blended Mode   With OIT

SOLIDWORKS 2015 and 2016 brings further enhancements to OIT with a new preview feature, allowing users to see parts and assemblies in grayscale, directly from the feature tree, before enabling them for edit. This gives great user feedback on which parts and assemblies you want to enable instead of just a bounding box. The grayscale image is accurate and responsive as the information is stored in the GPU the entire time. OIT is automatically enabled when using the AMD FirePro professional graphics card with 2GB GPU memory.

Powerful Real-time Previews with RealView®

AMD FirePro™ Professional Graphics unleashes the power of RealView® and brings your models to life. SOLIDWORKS® 2015 offers advanced shading in real time with RealView and Ambient Occlusion, which delivers outstanding depth and realism helping reduce the need for ray-traced rendering.

Consumer Graphics without RealView

RealView and Ambient Occlusion with AMD FirePro

Industry:
Manufacturing (CAD/CAM/CAE)

Application:
SOLIDWORKS 2015 and 2016

Challenges:
- Competitive Pressure Faster time-to-market
- More demanding designs

Solution:
- AMD FirePro professional graphics is fully optimized and certified for SOLIDWORKS 2015 and 2016 enabling advanced workflows at an incredible value.

Value Propositions:
- Rapid design and greater "design intuition" with GPU-accelerated transparency mode (OIT)
- Powerful Real-time Previews with RealView®
- Accurate Designs with Anti-Aliasing and 4K
- Productivity with Multiple Displays
- Advanced Workflow Performance for CAE

The AMD FirePro Graphics Advantage:
- Three-year warranty and extended availability
- Compared to consumer graphics, AMD FirePro graphics cards have an extended lifecycle
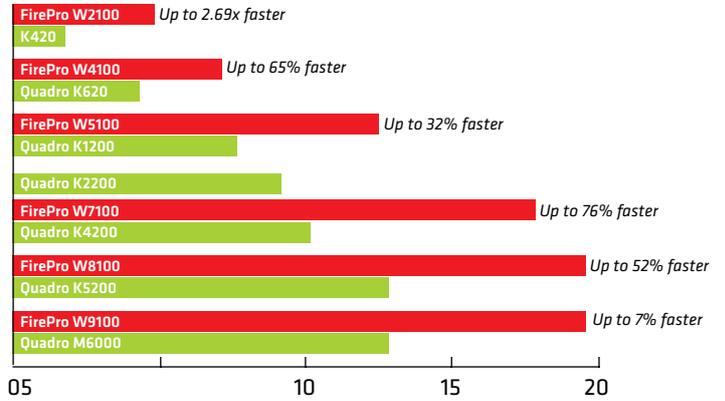- Highest level of customer support – Customers have the ability to contact the AMD technical team directly

Advanced Workflow Performance for CAE

The AMD FirePro professional graphics cards use the latest generation Graphics Core Next (GCN) GPU architecture from AMD. This design efficiently balances compute tasks with 3D workloads, enabling multi-tasking that is designed to optimize utilization and maximize performance.

In order to leverage the massive parallel processing power of the GPU for engineering analysis and simulation, AMD graphics cards are also optimized for OpenCL™.

Enabled by OpenCL™, the AMD FirePro™ GPU can be used to help accelerate calculations in engineering analysis and simulation – tasks traditionally carried out by a CPU. For example, the time taken to perform a structural and multi-physics analysis in the OpenCL™ version of Abaqus from Dassault Systemes SIMULIA can be cut significantly using a high-end AMD FirePro™ Professional graphics card, like the AMD FirePro W8100 or W9100.

SPECapc SOLIDWORKS® 2015 Benchmark with RealView®
Shaded with Edges + Shadows + Ambient Occlusion Graphics Sub-composite[1]

Card	Performance
FirePro W2100 / K420	Up to 2.69x faster
FirePro W4100 / Quadro K620	Up to 65% faster
FirePro W5100 / Quadro K1200	Up to 32% faster
Quadro K2200	
FirePro W7100 / Quadro K4200	Up to 76% faster
FirePro W8100 / Quadro K5200	Up to 52% faster
FirePro W9100 / Quadro M6000	Up to 7% faster

(Scale: 05 10 15 20)

Superior Productivity with Multiple Displays

Product development workflows have changed significantly over recent years. Working with multiple applications is common in many development workflows with design, simulation, data management and collaboration all happening in unison. AMD FirePro graphics cards features AMD Eyefinity multi-display technology that empowers engineers to view multiple applications and product assemblies across three, four or even six high-resolution monitors all from a single graphics card, at up to 4K x 2K resolution for each output[2]. Users can view designs at ultra-high resolutions for increased design accuracy, realism and better insight, or speed up workflow by using the extra screens to view additional applications.

Traditional Single-Display Set-Up

With AMD Eyefinity Multi-display technology

Tuned, Optimized, and Certified for SOLIDWORKS

AMD FirePro professional graphics is thoroughly tested and certified by Dassault Systemes SOLIDWORKS Corp. to help ensure optimized performance and compatibility. Used with workstations that are also tested and certified by Dassault Systemes SOLIDWORKS Corp. AMD FirePro Professional graphics delivers advanced performance and reliability for rapid model creation and rendering. A single unified driver is available for all desktop and mobile AMD FirePro products, simplifying system administration and maintenance.

SOLIDWORKS & AMD FIREPRO GRAPHICS RECOMMENDED CONFIGURATIONS

	Model Size and complexity	Visualisation	Simulation
AMD FirePro™ W8100	●●●	●●●	●●●
AMD FirePro™ W7100	●●●	●●●	●●◐
AMD FirePro™ W5100	●●●	●●○	●●○
AMD FirePro™ W4100	●●○	●●○	●○○
AMD FirePro™ W2100	●○○	●○○	●○○

●●● = best

For more information, visit in.amdfireprohub.com/solutions/solidworks/

AMD