



AMD FirePro™ W5100 Professional Graphics

Tackle larger projects with 4GB of graphics memory,
4K support and quad-display connectivity

Key Features:

- 4GB GDDR5 memory
- 128-bit memory interface
- Up to 96GB/s memory bandwidth
- Direct graphics memory access
- GeometryBoost technology
- Four standard DisplayPort outputs
- DisplayPort 1.2a support
- Maximum resolution (4096 x 2160)
- AMD Eyefinity multidisplay technology
- AMD PowerTune technology²
- <75W maximum power consumption
- Discreet active cooling solution
- 768 stream processors
- 1.43 TFLOPS peak single precision
- 89.2 GFLOPS peak double precision
- OpenCL™, DirectX®, OpenGL API support
- PCIe® 3.0 compliant, x16 bus interface
- Full-height/half-length single-slot form factor
- Planned minimum three-year life cycle
- Limited three-year warranty
- Microsoft® Windows 8.1, Windows® 7 and Linux (32- and 64-bit) support
- FCC, CE, C-Tick, BSMI, KCC, UL, VCCI, RoHS and WEEE compliance



Unprecedented Memory Configuration

For the first time AMD brings 4GB of ultrafast GDDR5 memory to the midrange workstation graphics segment, 2x the AMD FirePro™ W5000 graphics card, helping to improve system and application responsiveness.

Next-Generation Display Capabilities

With four DisplayPort outputs, each AMD FirePro W5100 graphics card supports AMD Eyefinity technology and is capable of driving up to four 4K displays¹, helping users to efficiently multitask across multiple applications and displays. Unlike its predecessor, AMD FirePro W5100 cards also support DisplayPort 1.2a and its new Adaptive-Sync feature.³

Reliable and Optimized Application Performance

AMD works with leading software vendors to certify more than 100 applications across the entire AMD FirePro™ product family, to ensure fast and reliable performance users can count on. AMD FirePro graphics drivers are rigorously tested and optimized for a wide variety of professional graphics applications to ensure optimal performance and improved reliability.

SAPPHIRE
Professional Graphics Solutions



Features	Benefits
AMD Graphics Core Next (GCN) Architecture	Efficiently balances compute tasks with 3D workloads, enabling multitasking that is designed to optimize utilization and maximize performance.
Reliable Drivers	Multiple AMD FirePro professional graphics driver versions are released several times each year and include performance and feature improvements. Every version undergoes a minimum of 16 consecutive weeks of testing conducted by three dedicated quality groups. AMD quality groups perform both manual and automated testing using the most stressful scenarios our engineers are able to create, plus many challenging ones from our ISV partners and OEM customers.
DirectGMA (Direct Graphics Memory Access)	Bypasses any need to traverse the host's main memory, reducing CPU utilization, and avoiding redundant transfers over PCIe®, resulting in high throughput, low latency data transfers.
GeometryBoost	Allows the GPU to process geometry data at a rate of twice per clock cycle. Triangle rates increase two-fold relative to a GPU that does not possess GeometryBoost.
AMD Eyefinity Multidisplay Technology	Enables highly immersive and powerful multitasking experiences across multiple displays. Each AMD FirePro™ W5100 is capable of driving up to four displays at 4K resolutions. ¹
DisplayPort 1.2a and Adaptive-Sync Support	Simultaneously outputs multiple independent audio streams and display content at resolutions beyond standard HD (maximum resolution of 4096 x 2160). Adaptive-Sync enables FreeSync technology from AMD that allows GPU control of display refresh rates for tear-free and jitter-free image quality when rotating models or viewing video content. ³
1.43 TFLOPS of Peak Single Precision Floating Point Performance	Helps speed up time required to complete single precision operations used within Video Enhancement, Signal Processing, Video Transcoding and Digital Rendering applications.
OpenCL™ 2.0 ⁴	AMD FirePro W5100 cards are designed to support OpenCL 2.0. Tap into the parallel computing power of its GPU and get up to 1.43 TFLOPS of peak single precision compute power to accelerate compute-intensive tasks.
AMD PowerTune Technology ²	Performs real-time analysis of applications that utilize a GPU. In the event that an application is not making the most of the power available to the GPU, AMD PowerTune technology can improve that application's performance by raising the GPU's clock speed by up to 30% automatically.



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 PowerTune technology is offered by certain AMD FirePro™ products, which are designed to intelligently manage GPU power consumption in response to certain GPU load conditions. Not all products feature all technologies – check with your component or system manufacturer for specific model capabilities.
 3. FreeSync is an AMD technology designed to reduce or eliminate screen tears in games and videos by allowing the monitor's refresh rate to be controlled by and synchronized to the graphics card. Requires DisplayPort 1.2a compliant monitors that support DisplayPort Adaptive-Sync and an AMD FirePro W5100, W7100, W8100 or W9100 graphics card with forthcoming FreeSync-enabled driver. Support for use with multiple monitors planned. Confirm supported technologies with system manufacturer before purchase.
 4. OpenCL 1.2 conformance expected. AMD plans to release OpenCL 2.0 drivers for enabled AMD FirePro W5100, W7100, W8100 and W9100 graphics cards in Q4 2014; conformance testing is planned at that time. Previous generation AMD FirePro products may not support OpenCL 2.0.
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SAPPHIRE PGS (Professional Graphics Solutions) is a business unit within SAPPHIRE Technology for Professional Graphics. It provides various types of professional graphics display solutions for workstation and professional clients. SAPPHIRE PGS supports the full range of 3D professional applications for professional users. For industrial customers, SAPPHIRE PGS integrates display related graphics application solutions for broadcasting, digital signage, medical, surveillance, ATC (Air Traffic Control) and other markets. SAPPHIRE PGS is focused on providing our customers with highly appropriate solutions and outstanding pre and after sales consultancy and services.

For more information, please visit : www.SapphirePGS.com