



# AMD FirePro™ W5000 DVI

## WORKSTATION GRAPHICS

### Most Powerful Midrange Workstation Graphics Card Ever Created for Medical Imaging.

#### Key Features:

- GPU with Graphics Core Next technology
- Single slot, full height / half length form factor
- Full 10- and 12-bit grayscale output
- 2GB GDDR5 memory, 256-bit interface
- Two dual-link DVI display outputs
- Maximum resolution 2560x2048 at 60Hz with packed pixel mode
- GeometryBoost technology
- AMD ZeroCore Power and AMD PowerTune technologies
- Active thermal solution
- 75W maximum power
- PCI Express® 3.0 compliant
- Designed, built and thoroughly tested by AMD
- Planned minimum three year lifecycle
- Limited three year warranty

AMD FirePro™ technology features a full range of high resolution, high bit depth, multi-display solutions designed to help medical administrators streamline their work environments, adopt new, leading-edge technologies to improve patient treatment and achieve high standard of care. For years medical imaging workflows have required two or three displays: one to display patient information and office applications, typically a lower resolution color display, and one or more high resolution monochromatic or color displays for reviewing patient scans. Multi-display solutions can help medical professionals work more efficiently by quickly viewing more information at once, as well as help diagnose patients accurately and prescribe appropriate treatments.

AMD FirePro™ W5000 DVI is the most powerful midrange workstation graphics card ever created for medical imaging, beating the competing card in a wide set of measurements<sup>1</sup>. With a maximum resolution of 2560 x 2048 (in packed pixel mode) and support for 10-bit color and grayscale, the W5000 DVI enables the image quality and clarity medical professional rely on to help them accurately diagnose and treat patients.

#### Long-term DVI Support

Support for the most common digital interface for monitors makes it easier than ever to configure dual-display set ups. Featuring two dual-link DVI outputs, AMD FirePro™ W5000 DVI workstation graphics enables customers to use available DVI displays they have on hand without the need for any external adapters. Further, support for VDI extends prior investments in costly diagnostic DVI displays while allowing customers to benefit from next generation graphics performance.

The AMD FirePro™ W5000 DVI workstation graphics



can support a variety of medical imaging workflows. It can drive up to two 5MP displays independently or combined, or a drive a single 10MP display with dual input connectors as a single large desktop. Images and scans can also be viewed at a maximum resolution of 2560x2048 (in packed pixel mode), allowing professionals to see in greater detail.

#### High Definition and Dense Imagery

AMD FirePro™ workstation graphics, including the AMD FirePro™ W5000 DVI, deliver high quality, high resolution 10-bit and 12-bit grayscale 2D output, providing up to 1,024 shades of gray, while delivering high performance 3D acceleration. Further, in order for customers to benefit from the increased bit depth of medical display devices, the graphics cards which are used to drive them should be capable of outputting higher bit depth information.

Conventional display devices use 8-bits per color channel (more than 16 million colors). AMD FirePro™ W5000 DVI supports 10-bits per color channel (or 30-bits per pixel) video output. It can transform and send 10-bit data to corresponding displays for an unprecedented level of color support, representing images and data with incredible sharpness and clarity. Combined with a 10-bit display, the “real world” colors achieved can help medical professionals accurately review and analyze content.



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### Reliability and Innovation from a Technology Leader

AMD FirePro™ technology is thoroughly tested and certified with many major professional applications, ensuring a level of reliability and compatibility not found in consumer graphics. AMD FirePro™ technology is also engineered to deliver innovation and reliability for a wide range of operating systems, including Windows 8, Windows® 7, Windows® XP, Windows Vista® and Linux® (32- and 64-bit). The unified driver, which supports all AMD FirePro™ products, helps reduce the total cost of ownership by simplifying installation, deployment and maintenance.

High-resolution imaging and detection technologies enable more precise, swift and timely diagnoses, limit the number of invasive and unnecessary procedures and support preventive care. Each day medical imaging professionals depend on workstations, displays and AMD FirePro™ workstation graphics cards (display controllers) that allow them to see more colors and shades of grey in greater detail. AMD is working together with display vendors and OEMs to further these essential medical imaging technologies to help improve diagnostic capabilities and patient treatment.

For more information, visit  
[www.amd.com/firepro](http://www.amd.com/firepro)

FEATURES	BENEFITS
Full 30-bit Display Pipeline	→ Enables more color values than 24-bit products for more accurate color and grayscale reproductions <sup>2</sup> .
Dual-view Display	→ Expands field of view across two ultra high resolution displays (DVI), allowing users to interact with multiple applications simultaneously, see images in more detail and improve workflow productivity. → Drive two 5MP displays independently or combined, or a single 10MP display with dual input connectors as a single large desktop.
2GB GDDR5 Memory	→ Offers unmatched application responsiveness. → Features double the memory and up to 2.5 times the memory bandwidth of the competing midrange solution <sup>3</sup> . → 256-bit memory interface and 102.4 GB/s memory bandwidth.
GeometryBoost	→ Utilizes the unique new hardware architecture that features dual graphics engines, allowing the GPU to process two primitives per clock cycle and provide ultra-high geometry processing performance. → Ensures ultra-high geometry performance and smooth handling of complex models.
AMD PowerTune Technology	Dynamically optimizes the GPU clock, while keeping the workstation energy conscious, conserving electricity when it isn't needed.
Unified Driver	One driver spans the entire family of AMD FirePro™ technology, helping to simplify maintenance and system administration.
Graphics Core Next (GCN) Architecture	Efficiently balance compute tasks with 3D workloads, enabling multi-tasking that is designed to optimize utilization and maximize performance.

### PRODUCT DETAILS

#### Memory and Bandwidth

- 2GB GDDR5 memory
- 256-bit memory interface
- 102.4 GB/s memory bandwidth

#### Display Outputs

- Dual dual-link DVI
- Maximum dual-link DVI resolution 2560x2048 (packed pixel mode)
- Maximum DVI resolution 1920x1200

#### API and OS Support

- OpenGL 4.2
- OpenCL™ 1.2<sup>4</sup>
- DirectX® 11.1
- Windows 8, Microsoft® Windows® 7, Windows Vista® and Linux (32-bit or 64-bit)

#### Power Consumption and Form Factor

- 75W maximum power
- Single-slot, PCIe® x16 bus interface
- Full height / half length form factor

#### System Requirements

- Single PCIe® x16 lane, 3.0 for optimal performance
- 2GB system memory
- Internet access for software installation
- Windows 8, Windows® 7, Windows Vista® and Linux® (32- and 64-bit)

#### → AMD Warranty and Support

- Three year limited product repair / replacement warranty
- Direct toll free phone and email access to dedicated workstation technical support team<sup>5</sup>
- Advanced parts replacement option

#### Regulatory Compliance

- FCC, CE, C-Tick, BSMI, KCC, UL, VCCI, RoHS and WEEE



<sup>1</sup> AMD FirePro™ W5000 DVI supports DirectX 11.1, features 1.3 TFLOPS peak single precision floating point performance, 2GB GDDR5 memory, a 256-bit memory interface and 102.4 GB/s memory bandwidth. Compared to Nvidia Quadro 2000D, Nvidia's highest midrange workstation graphics card as of 1/18/13, that supports DirectX 11, features 480 GFLOPS peak single precision floating point performance, 1GB GDDR5 memory, a 128-bit memory interface and 41.6 GB/s memory bandwidth. Visit <http://www.nvidia.com/object/product-quadro-2000-us.html> for Nvidia product details. FP-75

<sup>2</sup> Thirty-bit monitor required for full 30-bit display.

<sup>3</sup> AMD FirePro™ W5000/W5000 DVI features 2GB GDDR5 memory, a 256-bit memory interface and 102.4 GB/s memory bandwidth. Compared to Nvidia Quadro 2000/2000D with 1GB GDDR5 memory, a 128-bit memory interface and 41.6 GB/s memory bandwidth. Visit <http://www.nvidia.com/object/product-quadro-2000-us.html> for Nvidia product details. FP-42

<sup>4</sup> OpenCL 1.2 conformance expected.

<sup>5</sup> Toll free available in the U.S. and Canada only, email access is global.

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