## AMD RADEON™ PRO W6400

Welcome to Dependable Performance.

# AMD

### **MAINSTREAM** PERFORMANCE. AND **ALWAYS BY YOUR SIDE.**

The AMD Radeon™ PRO W6400 graphics card, powered by the award winning AMD RDNA™ 2 architecture, features a powerful 4GB of dedicated GDDR6 memory, hardware raytracing, 16 MB of all new AMD Infinity Cache™ and is ready for 2x demanding UHD HDR displays supporting truer colors.

The complete AMD Radeon PRO W6000 range of GPUs are meticulously engineered to deliver ultra-high viewport frame rates, dependability and serious performance for popular professional applications.

- 4GB GDDR6 Memory
- Hardware Raytracing Support
- Optimized for 2x Displays. 8K and HDR Ready
- Accelerated Multitasking Performance
- PCIe® 4.0 Support for Advanced Data Transfers

Certified for Many ISV Applications



#### **Power Efficient Performance**

Engineered from the ground up, the AMD RDNA™ 2 architecture introduces significant GPU advancements in the form of an enhanced Compute Unit, new visual pipeline, and all new AMD Infinity Cache™. In select professional applications, the AMD RDNA 2 architecture delivers up to 94% faster performance over previous generation GCN architecture<sup>1</sup>. This helps enable higher resolution performance together with vivid visuals, incorporating exceptional performance and power efficiency.

#### Affordable Realtime Hardware Raytracing

New to the AMD RDNA 2 Compute Unit is the implementation of a high-performance raytracing acceleration architecture known as the Ray Accelerator. This specialized hardware handles the intersection of rays directly on the AMD

Radeon PRO W6400 for accelerated hardware raytracing.

Learn more about VR capabilities of Radeon PRO Graphics at amd.com/PRO-VR



## **Technical Specifications**

GPU Architecture	AMD RDNA™ 2
Transistor Count	5.4 Billion (6 nm Process)
Stream Processors	768 (12 Compute Units)
Hardware Raytracing	Yes (12 Ray Accelerators)
Peak FP16 Throughput (Half Precision)	7.07 Teraflops of Compute Performance
Peak FP32 Throughput (Single Precision)	3.54 Teraflops of Compute Performance
AMD Infinity Cache™ (L3)	16 MB Graphics Cache
Dedicated Graphics Memory	4GB of High-Performance GDDR6
Peak Memory Bandwidth	128 GB per Second Transfer Speeds
PCI Express <sup>®</sup> Support	4.0 Ready (x4) with 3.0 Backward Compatibility
Error Correcting Code (ECC) Support	No
Professional ISV Certification Support	Yes
AMD Secure Processor (ASP)	Yes
VR and Realtime Ready	Yes
Remote Workstation <sup>2</sup> Ready	Yes
8K UHD and HDR Display Support	Yes
10-bit Color Ready for Truer Colors	Yes
Radeon PRO Viewport Boost Support <sup>3</sup>	Yes
AMD EyefinityTechnology Ready <sup>4</sup>	Yes
AV1 (AOMedia Video 1) Decode⁵ Support	No
Video Acceleration⁵ (HEVC / H265)	Yes – Decode
Display Connectors	2x DisplayPort™ 1.4 with DSC and Audio Support
Display Output Configurations (@ 60Hz with HDR Enabled.)	2x @ 3840x2160px (4K) 2x @ 5120x2880px (5K) 1x @ 7680x4320px (8K)
Supported APIs	DirectX® 12 Ultimate OpenGL® 4.6 OpenCL™ 2.2 Vulkan® 1.2
Peak Board Power	Up to 50 Watts of Power
Power Connectors	None
PSU Recommendation	350 Watts Minimum
Board Form Factor	Half Height, Single Slot 6.6" (168mm) Length
Supported Operating Systems (64-bit)	Microsoft® Windows® 10,

Windows® 11, Linux

Professional Graphics for Exceptional Performance with Reliability, Stability and Software Certifications at its Core.



#### Office Productivity Workloads

Being efficient with your standard office productivity tools is not a choice, it's compulsory. One minute you're on a teleconference with spreadsheets, browsers and emails open, the next you're making changes to that unexpected presentation you have to deliver. This is when you need your GPU to keep up with your demands. Enter the Radeon PRO W6400, meticulously engineered for these moments.

#### 3D Design Workloads

The Radeon PRO W6400 offers extensive support and software certifications for many architecture, engineering, design and manufacturing workloads. The main benefits of this affordable, light workload graphics card is its ability to handle a broad range of 2D and 3D tasks while balancing dependability, with affordability. It's packed with high-speed memory, great compute performance and the latest graphics architecture for increased workflow efficiencies.

#### **Image Editing Workloads**

Image Editing can be a resource intensive task requiring a medium workload GPU. However, what do you do if you don't need to edit images on a daily basis? This is where the Radeon PRO W6400 GPU steps in. Built to be dependable and offer access to the latest graphics technology, this affordable GPU brings 8K, Ultra-HD, HDR support, video decoding acceleration along with performance for media workloads.









## Relative GPU Performance in: Video Conferencing, Writing & Web Browsing Tasks at 4K 100% (More is Best)

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Radeon PRO W6800 GPU	COMPARABLE
Radeon PRO W6600 GPU	£104%
Radeon PRO W6400 GPU	COMPARABLE
Prior Gen Comparable GPU (Radeon PRO WX 3200)	100%

Testing conducted by AMD Performance Labs as of December 10, 2021 on a test system comprising Intel XeonW-2125 (Skylake-W) at 4Ghz, Windows® 10 Pro, AMD Radeon® PRO W6400 GPU pre-production sample using AMD Radeon PRO Driver 21.40 pre-release version and AMD Radeon® PRO W3 200 GPU / AMD Radeon® PRO W6800 GPU in AMD Radeon® PRO W6800 GPU with AMD Radeon PRO Driver 21.03. Benchmark Application: PCMark® 10 Extended Benchmark from Ul® Using Combined Test Average of "Video Conferencing Score", "Web Browsing Score" and "Writing Score": PC manufacturers may vary configurations, yielding different results. Performance may vary based on use of latest drivers, published drivers and production silicon. RPW-403

#### Mesh, Object and Model Data On Screen

100% (More is Best)

Radeon PRO W6800 GPU	<b>§536</b> %
Radeon PRO W6600 GPU	§451%
Radeon PRO W6400 GPU	§187%
Prior Gen Comparable GPU (Radeon PRO WX 3200)	100%

Testing conducted by AMD Performance Labs as of December 10, 2021 on a test system comprising Intel XeonW-2125 (Skylake-W) at 4Ghz, Windows® 10 Pro, AMD Radeon™ PRO W6400 GPU pre-production sa with AMD Radeon PRO driver 21.40 pre-release version and / AMD Radeon™ PRO WX 3200 GPU / AMD Radeon" PRO W6600 GPU / AMD Radeon" PRO W6800 GPU with AMD Radeon PRO Driver 21.03. Benchmark Application: Holomark 2 Benchmark. PC manufacturers may vary configurations, yielding different results. Performance may vary based on use of latest drivers, published drivers and production silicon. RW-402

#### Photo Editing Tasks at 4K

100% (More is Best)

Radeon PRO W6800 GPU	£222%
Radeon PRO W6600 GPU	£187%
Radeon PRO W6400 GPU	§ 131%
Prior Gen Comparable GPU (Radeon PRO WX 3200)	100%

Testing conducted by AMD Performance Labs as of December 10, 2021 on a test system comprising Intel XeonW-2125 (Skylake-W) at 4Ghz, Windows® 10 Pro, AMD Radeon® PRO W6400 GPU pre-production sample with AMD Radeon PRO Driver 21.40 pre-release version and AMD Radeon® PRO W3200 GPU / AMD Radeon® PRO W6500 GPU / AMD Radeon® PRO W6500 GPU / AMD Radeon® PRO Driver 21.03. Benchmark Application: PCMark® 10 Extended Benchmark from UL® Photo Editing Score. PC manufacturers may vary configurations, yielding different results. Performance may vary based on use of latest drivers, published drivers and production silicon, RPW-404

<sup>1</sup>Testing as of March 23, 2021 by AMD Performance Labs on a test system comprised of an AMD Ryzen\* \$950X with AMD Radeon\* PRO W5700, AMD Radeon\* PRO W5800, AMD Radeon\* PRO W5800, AMD Radeon\* PRO WX 9100. Benchmark Applications: Lumion v.11 (Museum, Valley Winery, Downtown Development, Glass House, Villa Cabrera, Farnsworth, Residential Home, Beach House). Topaz Video Enhance AI 2.0.0 (Arternis-H0, Gaia-H0, Theia-Detail), Dassault Systèmes SOLIDWORKS\* Visualize 2021 SP3 (Camaro default angle, Yellow motorcycle, Snowmobile). Performance may vary based on factors such as tasks performed, driver version and hardware configuration. RPW-363

Learn more at www.amd.com/en/technologies/eyefinity-professionals

Video codec acceleration (including at least the HEVC (H.265), H.264, VP9, and AV1 codecs) is subject to and not operable without inclusion/installation of

compatible media players. C0-176

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