# AMD RADEON™ PRO W6600

## Welcome to Exceptional Performance.

**AMD**

## METICULOUSLY ENGINEERED FOR HIGH PERFORMANCE

The AMD Radeon™ PRO W6600 graphics card, powered by an award winning AMD RDNA™ 2 architecture, features a powerful 8GB of dedicated GDDR6 memory, hardware raytracing, 32 MB of all new AMD Infinity Cache and is ready for 4x 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.

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

GDDR6
**8GB**

### 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. AMD RDNA 2 architecture delivers up to 94% faster performance over previous generation GCN architecture[1]. This helps enable higher resolution performance together with vivid visuals, incorporating superior performance and power efficiency.
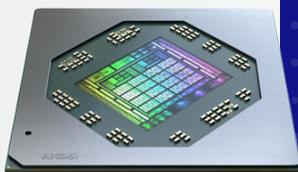
### Affordable Realtime Hardware Raytracing

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 W6600 for accelerated hardware raytracing.

**AMD RADEON VR READY CREATOR**

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

## Technical Specifications

| | |
|---|---|
| GPU Architecture | AMD RDNA 2 |
| Transistor Count | 11.06 Billion (7 nm Process) |
| Stream Processors | 1792 (28 Compute Units) |
| Hardware Raytracing | Yes (28 Ray Accelerators) |
| Peak FP16 Throughput (Half Precision) | 20.8 Teraflops of Compute Performance |
| Peak FP32 Throughput (Single Precision) | 10.4 Teraflops of Compute Performance |
| Infinity Cache (L3) | 32 MB Graphics Cache |
| Dedicated Graphics Memory | 8GB of High-Performance GDDR6 |
| Peak Memory Bandwidth | 224 GB per Second Transfer Speeds |
| PCI Express® Support | 4.0 Ready (x8) 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[2] Ready | Yes |
| 8K UHD and HDR Display Support | Yes |
| 10-bit Color Ready for Truer Colors | Yes |
| Radeon PRO Viewport Boost Support | Yes |
| AMD EyefinityTechnology Ready[3] | Yes |
| AV1 (AOMedia Video 1) Decode[4] Support | Yes |
| Video Acceleration[4] (HEVC / H265) | Yes – Encode and Decode |
| Display Connectors | 4x DisplayPort™ 1.4 with DSC |
| Display Output Configurations (@ 60Hz with HDR Enabled.) | 4x @ 3840x2160px (4K) 4x @ 5120x2880px (5K) 1x @ 7680x4320px (8K) |
| Supported APIs | DirectX® 12 Ultimate OpenGL® 4.6 OpenCL™ 2.1 Vulkan™ 1.2 |
| Peak Board Power | Up to 130 Watts of Power |
| Power Connectors | 6-pin Power Cable |
| PSU Recommendation | 350 Watts Minimum |
| Board Form Factor | Full Height, Single Slot 9.5" (241mm) Length |
| Supported Operating Systems (64-bit) | Microsoft® Windows® 10 Linux® |

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

## Architecture & Engineering Workloads

AEC software is typically CPU dependant, but some software is embracing GPU acceleration. This typically reserved for compute heavy tasks like photogrammetry and realtime rendering. This is where choosing the right GPU for the workload is important for efficient IT budget usage. The Radeon PRO W6600 GPU offers affordable performance.

### Relative GPU Performance in:
Agisoft Metashape

100% (More is Best)

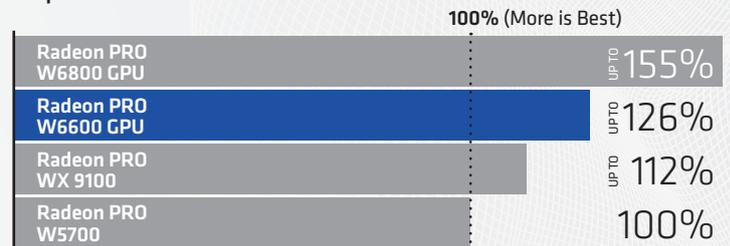| | |
|---|---|
| Radeon PRO W6800 GPU | UP TO 165% |
| Radeon PRO W6600 GPU | UP TO 137% |
| Radeon PRO WX 9100 | UP TO 138% |
| Radeon PRO W5500 | 100% |

Testing as of May 9, 2021 by AMD Performance Labs on a test system comprised of a Lenovo P620, AMD64 TR 3975WX, with AMD Radeon™ PRO W5500 AMD / Radeon™ PRO W5700 / AMD Radeon™ PRO WX 9100 / AMD Radeon™ PRO W6800 (pre-production sample) / Dual AMD Radeon™ PRO W6800 (pre-production sample), at 2560 x 1080 display resolution. Benchmark Application: Puget Systems benchmark for Agisoft Metashape 1.71, Rock Model tasks Align Photos and Build Depth Maps, School Map tasks Align Photos and Build Depth Maps. Performance may vary based on factors including driver version and system configuration. RPW-384

## Design & Manufacturing Workloads

The AMD Radeon PRO W6600 offers extensive support and software certifications for many design and manufacturing workloads. The main benefits of this affordable, medium workload graphics card is it's ability to handle a broad range of common manufacturing tasks while balancing superior multitasking capabilities, with affordability. It's packed with high-speed memory, compute performance and a new graphics architecture for increased workflow efficiencies.

### Autodesk® Inventor® Rendering at 2K and 4K

100% (More is Best)

| | |
|---|---|
| Radeon PRO W6800 GPU | UP TO 148% |
| Radeon PRO W6600 GPU | UP TO 138% |
| Radeon PRO W5700 | UP TO 120% |
| Radeon PRO W5500 | 100% |
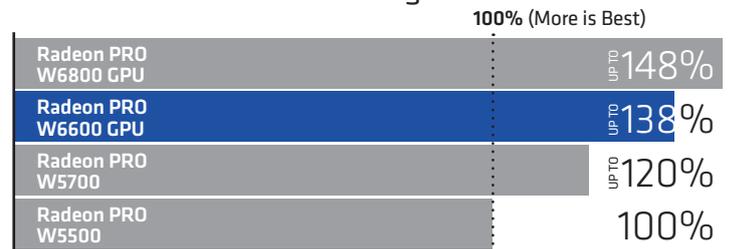
Testing as of May 8, 2021 by AMD Performance Labs on a test system comprised of an AMD Ryzen™ 7 3700X with AMD Radeon™ PRO W5500 / AMD Radeon™ PRO W5700 / AMD Radeon™ PRO W6600 (pre-production sample) / AMD Radeon™ PRO W6800 (pre-production sample). Benchmark Application: Autodesk® Inventor® 2022 with Radeon ProRender Plugin V1. Performance may vary based on factors including driver version and system configuration. RPW-370

## Media & Entertainment Workloads

The M&E industry has embraced realtime raytracing, and while this is critical to many workflows, the demand for increased video editing and modelling performance has accelerated. The Radeon PRO W6600 brings accelerated hardware raytracing, but also improves other tasks for a balanced approach to common M&E workloads. This affordable GPU offers advanced 8K Ultra-HD HDR support, video encoding and decoding acceleration along with performance for 3D modeling workloads.

### Topaz Video Enhance AI™ at 4K

100% (More is Best)

| | |
|---|---|
| Radeon PRO W6800 GPU | UP TO 155% |
| Radeon PRO W6600 GPU | UP TO 126% |
| Radeon PRO WX 9100 | UP TO 112% |
| Radeon PRO W5700 | 100% |

Testing as of March 16, 2021 by AMD Performance Labs on a test system comprised of an AMD Ryzen™ 5950X with AMD Radeon™ PRO W5700 / AMD Radeon™ PRO WX 9100 / AMD Radeon™ PRO W6600 / AMD Radeon™ PRO W6800 (pre-production sample), at 3840x2160 display resolution. Benchmark Application: Topaz Video Enhance AI 2.0.0 tasks Artemis-HQ, Gaia-HQ and Theia-Detail. Performance may vary based on factors including driver version and system configuration. RPW-360



**AMD RADEON PRO W6600**

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