

# Why choose Radeon™ Pro GPUs

Your guide to the benefits of professional graphics cards



R A D E O N P R O

[amd.com/RadeonPro](http://amd.com/RadeonPro)

## Sacrifice nothing

Today's modern workstation user requires performance, stability, image quality and software certifications for increased productivity. Users across all industries are expected to use more graphically intense applications than ever before, powered by a reliable system that is always ready to go. The entire AMD Radeon™ Pro graphics range answer these needs, but goes further by bringing system power efficiencies, thermal efficiencies, and multitasking leadership, fully backed by robust software. AMD professional GPUs are for those who need performance, durability and high quality components for increased reliability.

## Engineered for 24/7 use

For most people hardware is only considered when making a new purchase or worse, when something goes wrong. When considering application performance, the GPU should be one of your main priorities. With more software taking advantage of hardware acceleration, the stresses placed on your GPU rise. AMD offers high-performing, affordable GPUs for your workflows, with a commitment to reliability and quality components.

**Radeon™ Pro graphics are quality driven solutions designed primarily for reliability.**

## Dependability in critical applications

At the core of AMD professional graphics is an extensive Independent Software Vendor (ISV) certification and application testing process called the Day Zero Certification Program. This helps ensure you enjoy the latest driver benefits (known as AMD Radeon™ Pro Software for Enterprise) combined with certifications on the day of GPU driver release.

 [amd.com/Certified](http://amd.com/Certified)



## Multitasking superiority

The accelerated multitasking capabilities of the Radeon™ Pro GPU range continue to beat competitive GPUs. A typical scenario where you experience these benefits is when the CPU is being heavily tasked (for example multi-threaded rendering) while the GPU is navigating or modelling in another applications viewport. In these real-world scenarios Radeon™ Pro GPUs will experience a slight decrease in original performance, however provides up to 10x better application performance compared to the equivalent non-AMD GPUs<sup>1</sup>. When deadlines are approaching, this is not when you want your GPU to falter.

SUPPORT FOR  
**HDR & UHD  
Displays**  
ACROSS THE ENTIRE RANGE

OVER  
**1592 ISV  
Certifications**  
SINCE DAY ZERO PROGRAM LAUNCH\*

UP TO  
**3 Year Limited  
Warranty**  
ON RADEON PRO GRAPHICS\*

The information contained herein is for informational purposes only and is subject to change without notice. While every precaution has been taken in the preparation of this document, it may contain technical inaccuracies, omissions, and typographical errors, and AMD is under no obligation to update or otherwise correct this information. Advanced Micro Devices, Inc. makes no representations or warranties with respect to the accuracy or completeness of the contents of this document, and assumes no liability of any kind, including the implied warranties of non-infringement, merchantability or fitness for particular purposes, with respect to the operation or use of AMD hardware, software or other products described herein. No license, including implied or arising by estoppel, to any intellectual property rights is granted by this document. Terms and limitations applicable to the purchase or use of AMD's products are as set forth in a signed agreement between the parties or in AMD's Standard Terms and Conditions of Sale.

© 2020 Advanced Micro Devices, Inc. All rights reserved. AMD, the AMD Arrow logo, Radeon and combinations thereof are trademarks of Advanced Micro Devices, Inc. Other product names used in this publication are for identification purposes only and may be trademarks of their respective companies.

## More pixels. Better pixels

Radeon™ Pro GPU's provide a number of unique technologies for modern workflow strains, for example AMD Eyefinity multi-display technology empowers you to have multiple applications and projects across three, four or even six high-resolution monitors all from a single GPU<sup>3</sup>. But more pixels doesn't mean better pixels. AMD Radeon™ Pro Image Boost allows the GPUs to output a higher resolution and then scale to your lower native display, helping improve sharpness and clarity for making decisions. To learn more visit:

[amd.com/Radeon-Pro-Software](https://amd.com/Radeon-Pro-Software)

**AMD**  
**R A D E O N P R O**

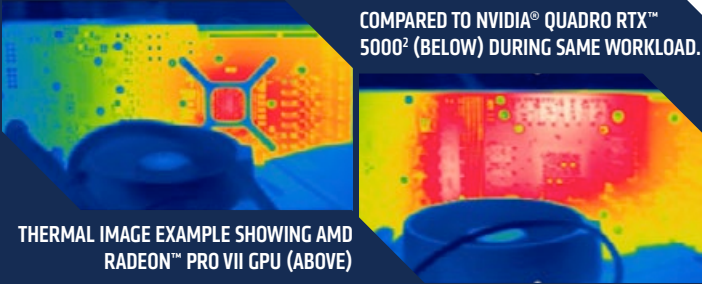
[amd.com/RadeonPro](https://amd.com/RadeonPro)

## Ultra-high resolutions

All Radeon™ Pro GPU's support DP 1.4, offering modern monitor compatibility such as 8K UHD and High Dynamic Range support. Depending on the GPU model, it can be equipped with standard DisplayPort™, Mini-DisplayPort (mDP), or a combination. Although both connector types are functionally equivalent, mDP enables higher connector density for more displays.

## More than a minimal design

Heat hot spots can introduce component failure risks. To combat this Radeon™ Pro GPUs use a high-performing fan to help keep the GPU cool, and the elegant design does more than look great, it allows for a more uniform heat spread. Notice how the adjacent thermal images show the evenly spread heat of the AMD GPU (left) which is up to 10% cooler than the competitive equivalent<sup>2</sup>. Also visible is the 'X' shaped clip, added to help protect the ASIC (Application-Specific Integrated Circuit) from shock and vibration.



COMPARED TO NVIDIA® QUADRO RTX™ 5000<sup>2</sup> (BELOW) DURING SAME WORKLOAD.

THERMAL IMAGE EXAMPLE SHOWING AMD RADEON™ PRO VII GPU (ABOVE)

## Knowledge and expertise

AMD brings its combined CPU and GPU knowledge to every component, providing you a better overall system experience. Advanced GPU technology eases your common project bottlenecks, such as PCIe® 4.0 compatibility and GDDR6 memory found in select Radeon™ Pro GPUs.



## Find the right GPU for you

With GPU options available for desktop-based or mobile workstations, the Radeon™ Pro GPU range brings the same innovations, and quality into your choice of system form factor. Not sure what GPU is right for you, visit:

[amd.com/ProGPUselector](https://amd.com/ProGPUselector)

## Access for remote employees

Access your workstation from virtually anywhere, with no AMD licensing fees and practically no performance penalty with AMD Remote Workstation<sup>5</sup>. Simply run your workstation-based applications on a mobile device of your choice, by remotely connecting to your powerful workstation and compatible Radeon™ Pro GPU. Learn more at:

[amd.com/RemoteWorkstation](https://amd.com/RemoteWorkstation)

to simulate the application workflow performance with multitasking. Calculated the performance when multitasking as a percentage then calculated the ratio between the two percentages. AMD RADEON™ PRO W5500 RESULTS: AMD Radeon™ Pro W5500 SPECviewer™ 13 benchmark sw-04 viewset average test results score: 138.75 AMD Radeon™ Pro W5500 with SPECviewer™ 13 benchmark sw-04 viewset test results score with Autodesk® 3ds Max® 2019 rendering an AMD internal engine 3d model at 1920 x 1080 with continuous iterations using the Arnold CPU renderer simultaneously average: 86.82 Performance when multitasking: 100 + (86.82 - 138.75) / (138.75 \* 100) = 62.57% of the workflow performance compared to the performance when not multitasking on the AMD Radeon™ Pro W5500 graphics card. NVIDIA QUADRO® P2200 RESULTS: NVIDIA Quadro® P2200 SPECviewer™ 13 benchmark sw-04 viewset average test results score: 139.76 NVIDIA Quadro® P2200 with SPECviewer™ 13 benchmark sw-04 viewset test results score with Autodesk® 3ds Max® 2019 rendering an AMD internal engine 3d model at 1920 x 1080 with continuous iterations using the Arnold CPU renderer simultaneously average: 7.91 Performance when multitasking: 100 + (7.91 - 139.76) / (139.76 \* 100) = 5.66% of the workflow performance compared to the performance when not multitasking on the NVIDIA Quadro® P2200 graphics card. Difference in performance while multitasking between the AMD Radeon™ Pro W5500 graphics card and the NVIDIA Quadro® P2200 graphics card (62.57/5.66) - 1 = -10.05x average better application workflow performance for the AMD Radeon™ Pro W5500 graphics card. Scores are based on AMD internal lab measurements and may vary. PC manufacturers may vary configurations, yielding different results. Performance may vary based on use of latest drivers. SPEC® and SPECviewer™ are registered trademarks of the Standard Performance Evaluation Corporation. Additional information about the SPEC benchmarks can be found at [www.spec.org/gwpg](http://www.spec.org/gwpg). RPW-274

<sup>2</sup> Testing performed on April 23, 2020 by AMD Performance Labs on a production test system comprised of an AMD Ryzen 5 3600, Windows® 10 1903, AMD Radeon™ Pro VII, AMD Radeon™ Software for Enterprise 20.Q2 Pre-release version/NVIDIA Quadro® RTX, NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R440 U6 (442.5) using AMD Internal Benchmark for thermal stress test inside a 20°C thermally controlled chamber. Results may vary. RPW-321

<sup>3</sup> 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 2 MST-enabled hubs may be required. See [www.amd.com/eyefinity](http://www.amd.com/eyefinity) for full details.

<sup>4</sup> AMD Radeon™ Pro Software for Enterprise has over 1592 ISV applications certifications since the start of the Day Zero Certification Program. Based on AMD internal research as of August 6, 2020, the total number of ISV application certifications for AMD Radeon™ Pro Software for Enterprise drivers (18.Q4 + 19.Q1 + 19.Q2 + 19.Q3 + 19.Q4 + 20.Q1 + 20.Q3) since the start of Day Zero Certification Program (18.Q4 or November 14, 2018) is 1443. Please see <https://www.amd.com/en/support/certified-drivers> for a complete list of Radeon™ Pro Software certifications. RPS-107

<sup>5</sup> For full details visit <https://www.amd.com/en/support/kb/warranty-information/workstation-graphics>

<sup>6</sup> Compatible with AMD Radeon™ Pro WX 2100, 3100, 3200, 4100, 5100, 7100, 8200, 9100, and AMD Radeon™ Pro W5500, W5700, and VII GPUs. Remote Workstation functionality requires purchase and installation of Citrix Virtual Apps & Desktops™, Microsoft® Remote Desktop Services or VMware Horizon®. Citrix and Microsoft require Enterprise driver 18.Q4 or newer, VMware requires Enterprise driver 20.Q3 or newer. RPS-50

To learn more about AMD professional graphics visit:

[amd.com/RadeonPro](https://amd.com/RadeonPro)

**AMD**