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FOR ADVANCED WORKLOADS

AMD Radeon™ PRO W7700 GRAPHICS

CREATE | VISUALIZE | INSPIRE

GDDR6
16GB

AMD
RDNA 3

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Key Features

- 16GB GDDR6 Memory with ECC Support
- 2x AI Accelerators per Compute Unit
- 2nd Generation Ray Tracing
- 2x Simultaneous Encode/Decode Streams
- AV1 Encode & Decode[3]
- AI Enhanced Video Encode
- AMD Radiance Display™ Engine
- DisplayPort™ 2.1 (UHBR 13.5) with up to 52.2 Gbit/s
- Up to 10K60 w/ DSC display support
- Support for next-gen displays
- 3D Stereo Support

50%

More Ray Tracing Performance Per CU[1]

Higher Quality
Faster Rendering
Beautiful Results

2x

Max Total Data Rate[2]

Industry-leading
Radiant colors
Huge displays

24/7

Reliability

Built for demand
Certified performance
Efficient multitasking

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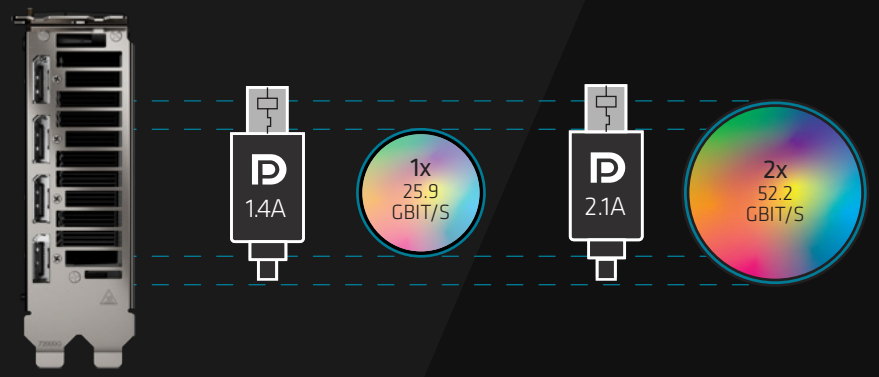
AMD **Radience Display™** Engine

First Workstation Graphics with DisplayPort™ 2.1



	DISPLAYPORT™ 1.4A	DISPLAYPORT™ 2.1 UHBR 13.5
HIGH FRAME RATE	8K60 W/ DSC	8K120 W/ DSC
ACCURATE COLOR	6K60 COMPRESSED	6K60 UNCOMPRESSED
LARGER RESOLUTIONS	8K60 W/ DSC	10K60 W/ DSC

Technical Specifications

GPU Architecture
AMD RDNA™ 3

Hardware Raytracing
Yes

Lithography
TSMC 5nm GCD | 6nm MCD

Ray Accelerators
48

ROPs
96

Stream Processors
3072

Compute Units
48

AI Accelerators
96

Peak Half Precision (FP16) Performance
56.54 TFLOPS

Peak Single Precision (FP32) Performance
28.27 TFLOPS

Peak Double Precision (FP64) Performance
.88 TFLOPS

Transistor Count
28.1 Billion

Total Board Power (TBP)
190 W

PSU Recommendation
650 W

Dedicated Memory Size
16 GB

Memory Speed
Up to 18 Gbps

Dedicated Memory Type
GDDR6

AMD Infinity Cache™
64 MB

Memory Interface
256-bit

Peak Memory Bandwidth
Up to 576 GB/s

Memory ECC Support
Yes

4K H264 Encode | Decode
Yes | Yes

H265/HEVC Encode | Decode
Yes | Yes

AV1 Encode | Decode
Yes | Yes

3D Stereo Support
Yes

VR and Realtime Ready
Yes

Form Factor
PCIe® Add-in Card

Bus Type
PCIe 4.0 x16 with 3.0 Backward Compatibility

Cooling
Active

Displays Type(s)
4x DisplayPort™ 2.1

Display Configurations
4x 4096 x 2160 (4K DCI)
2x 6144 x 3456 (6K)
1x 7680 x 4320 (8K)
1x 12288 x 6912 (12K)

HDR Support
Yes

8K Support
Yes

12K Support
Yes

10-BIT Color Ready
Yes

12-BIT Color Ready
Yes

Board Form Factor
9.5" (241 mm), Double Slot, Full Height

Supported Technologies
AMD Remote[4] Workstation
AMD Radeon™ Media Engine
AMD Software: PRO Edition
AMD Radeon™ VR Ready Creator
AMD EyefinityTechnology[5] (Professionals)
AMD Radeon™ ProRender

Software API Support
DirectX 12 Ultimate
OpenGL 4.6
Vulkan 1.3
Open CL 2.1

Product Family
AMD Radeon™ PRO

Product Line
AMD Radeon™ PRO W7000 Series

Platform
Desktop Workstation

Supported Operating Systems
Windows 11 - 64-Bit Edition
Windows 10 - 64-Bit Edition
Linux x86_64-Bit

External Power Connectors
1x8-Pin Power Connectors

AMD
RADEON
PRO W7700

NVIDIA RTX **4000 SFF Ada**

NVIDIA RTX **A4000**

NVIDIA RTX **A4500**

AMD Radeon™ **PRO W7700**

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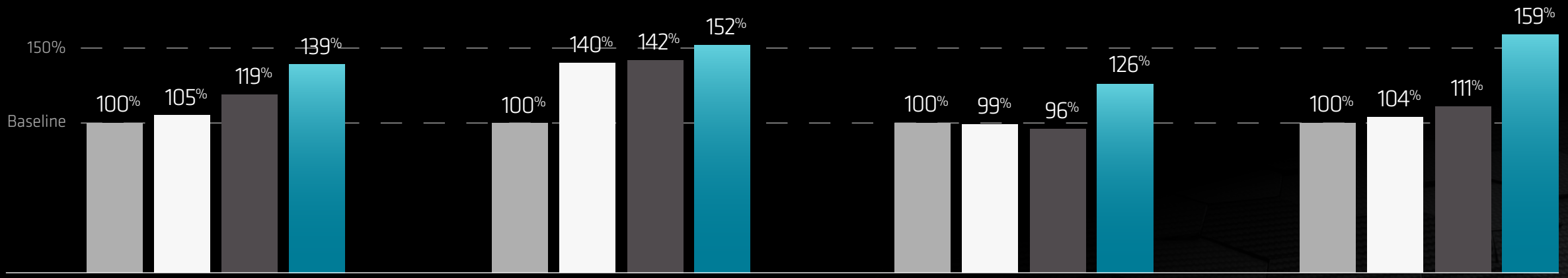
Performance



Generational Performance

SPECviewperf® 2020. Relative to the RTX 4000 SFF Ada. Higher is better.

RPW-447: Testing as of October 2023 by AMD Performance Labs on a test system comprised of an AMD Ryzen Threadripper PRO 5945WX, 64GB, Windows® 11 Pro build 22621, 64-bit, AMD Radeon™ PRO Software23.30 RCP 3 with AMD Radeon™ PRO W7700 vs. similarly configured system with Nvidia Driver 536.67 with Nvidia RTX 4000 SFF Ada, RTX A4000, RTX A4500 at 3840x2160 display resolution. Benchmark Application: SPECviewperf 2020 V3.1 (Geomean across 3dsmax-07, catia-6, creo-03, energy-03, maya-06, medical-03, snx-04, solidworks-07). Additional information about the SPEC benchmarks can be found at www.spec.org/gwpg.SPEC® and SPECviewperf® are registered trademarks of the Standard Performance Evaluation Corporation. Results may vary. RPW-447.

SOLIDWORKS

4K GPU Composite Score. Relative to the RTX 4000 SFF Ada. Higher is better.

RPW-455: Testing as of October 2023 by AMD Performance Labs on a test system comprised of an AMD Ryzen Threadripper PRO 5945WX, 64GB, Windows® 11 Pro build 22621, 64-bit, AMD Radeon™ PRO Software23.30 RCP 3 with AMD Radeon™ PRO W7700 vs. similarly configured system with Nvidia Driver 536.67 with Nvidia RTX 4000 SFF Ada, RTX A4000, RTX A4500 at 3840x2160 display resolution. Benchmark Application: SPECapc® for Solidworks® 2022 benchmark. Additional information about the SPEC benchmarks can be found at www.spec.org/gwpg. SPEC® and SPECviewperf® are registered trademarks of the Standard Performance Evaluation Corporation. Results may vary. RPW-455.

Blackmagic DaVinci Resolve

4K Media Score. Relative to the RTX 4000 SFF Ada. Higher is better.

RPW-454: Testing as of October 2023 AMD by Performance Labs on a test system comprised of an AMD Ryzen Threadripper PRO 5945WX, 64GB, Windows® 11 Pro build 22621, 64-bit, AMD Radeon™ PRO Software 23.30 RCP 3 with AMD Radeon™ PRO W7700 vs. similarly configured system with Nvidia Driver 536.67 with Nvidia RTX 4000 SFF Ada, RTX A4000, RTX A4500 at 3840x2160 display resolution. Benchmark Application: PugetBench for DaVinci Resolve - Standard Overall Score. Results may vary. RPW-454

Autodesk Maya

1K SPECviewperf® 2020, maya-06. Relative to the RTX 4000 SFF Ada. Higher is better.

RPW-446: Testing as of October 2023 by AMD Performance Labs on a test system comprised of an AMD Ryzen Threadripper PRO 5945WX, 64GB, Windows® 11 Pro build 22621, 64-bit, AMD Radeon™ PRO Software23.30 RCP 3 with AMD Radeon™ PRO W7700 vs. similarly configured system with Nvidia Driver 536.67 with Nvidia RTX 4000 SFF Ada, RTX A4000, RTX A4500 at 3840x2160 display resolution. Benchmark Application: SPECviewperf 2020 V3.1 at 1K (Geomean across 3dsmax-07, catia-6, creo-03, energy-03, maya-06, medical-03, snx-04, solidworks-07). Additional information about the SPEC benchmarks can be found at www.spec.org/gwpg. SPEC® and SPECviewperf® are registered trademarks of the Standard Performance Evaluation Corporation. Results may vary. RPW-446.

1 PW-428: 50% more RAYTRACING performance per CU Based on November 2022 AMD internal performance lab measurement of rays with indirect calls on W7900 GPU vs. W6800 GPU. RPW-428

2 RPW-449. Based on VESA DisplayPort 2.1 (UHBR 13.5) specifications details. RPW-449.

3 GD-176: 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. GD-176

4 Learn more at www.amd.com/en/technologies/remote-workstation

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

PID# 232358354

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