### PERFORMANCE THAT SCALES WITH YOUR WORKLOADS

# AMD Radeon™ PRO VV7900 Dual Slot



# CREATE | VISUALIZE | INSPIRE





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## **Key Features**

> 48GB GDDR6 Memory with ECC Support

Efficient Chiplet Design

> 2x Al Accelerators per Compute Unit

2<sup>nd</sup> Generation Ray Tracing

> 2x Simultaneous Encode/Decode Streams

AV1 Encode & Decode

Al Enhanced Video Encode

AMD Radiance Display<sup>™</sup> Engine

DisplayPort<sup>™</sup> 2.1 with up to 77.4Gbit/s

> Up to 12K120 display support

Support for next-gen displays

> Dual slot form factor





**1.5**x

More Memory than Radeon<sup>™</sup> PRO W6800

> Larger 3D models Efficient multitasking Heavier RAW media

**5**X Max Total Data Rate of

AND LON OC

Max Total Data Rate of DisplayPort<sup>™</sup> 2.1

ANDT

Industry-leading Radiant colors Huge displays **1.5**x

More Performance than Radeon<sup>™</sup> PRO W6800

> Dense geometry Fluid viewports

## AMD **Radiance Display**<sup>™</sup> Engine

First Workstation Graphics with DisplayPort<sup>™</sup> 2.1



ACCURATE COLOR	6K60 COMPRESSED	8K60 UNCOMPRESSED
LARGER RESOLUTIONS	8K60 W/ DSC	12K60 W/ DSC

## **Technical Specifications**

GPU Arch

AMD F

Hardwar

Lithogra

TSMC !

Ray Acce

ROPs

Stream

Comput

Shaders

Peak Hal

Perform

122.64

Peak Sir

Perform

61.32

Peak Dou

Perform

Transiste

96

64

6144

Yes

DNA <sup>™</sup> 3	295 W	
Raytracing	PSU Recommendation 650 W	
<sup>hy</sup> nm GCD   6nm MCD	Dedicated Memory Size 48 GB	
lerators	Memory Speed 18 Gbps	
	Dedicated Memory Type GDDR6	
rocessors	AMD Infinity Cache™ <b>96</b>	
Units	Memory Interface 384-bit	
	Peak Memory Bandwidth <b>Up to 864 GB/s</b>	
Precision (FP16) nce	Memory ECC Support <b>Yes</b>	
gle Precision (FP32)	– 4K H264 Encode   Decode Yes   Yes	
FLOPS	H265/HEVC Encode   Decode	
ble Precision (FP64) nce L <b>OPS</b>	AV1 Encode   Decode Yes   Yes	
r Count ion	Dual Media Support Yes	
	3D Stereo Support <b>Yes</b>	

Form Factor PCIe<sup>®</sup> Add-in Card Bus Type PCIe 4.0 x16 Cooling Active

Displays Type(s) 3x DisplayPort<sup>™</sup> 2.1 & 1x Enhanced Mini DP 2.1

Display Configurations 4x 4096 x 2160 (4K DCI) @ 120Hz with DSC 2x 6144 x 3456 (6K) 12-bit HDR @ 60Hz Uncompressed 1x 7680 x 4320 (8K) 12-bit HDR @ 60Hz Uncompressed 1x 12288 x 6912 (12K) @ 120Hz with DSC HDR Support Yes 8K Support

Full Height Board Length 11" (280 mm)

Board Width
Dual Slot

16K Support

Board Height

Yes

#### Supported Technologies AMD Remote Workstation AMD Radeon<sup>™</sup> Media Engine AMD Software: PRO Edition AMD Radeon<sup>™</sup> VR Ready Creator AMD EyefinityTechnology (Professionals)

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

AMD Radeon<sup>™</sup> PRO

Product Line AMD Radeon<sup>™</sup> 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
2x8-Pin Power Connectors



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#### **Standard Overall Score**

#### PugetBench DaVinci Resolve, Higher is Better. See Endnote RPW-464

#### **GPU Composite Score**

SPECapc 3ds Max 2020, Higher is Better.

#### **GPU Composite Score**

#### SPECapc Solidworks 2022 4K NoAA, Higher is Better. See Endnote RPW-470

# **Digital Content Creation**

PCMark 10, Higher is Better. See Endnote RPW-466

RPW-464: Testing as of May 10, 2024 by AMD Performance Labs on a test system comprised of an AMD Ryzen Threadripper PRO 5945WX, 64GB DDR4 RAM, Windows 11 Pro (Build:22635.3130) 23H2, 64-bit, with AMD Radeon" PRO W7900 Dual Slot, vs. a similar system with Nvidia RTX 5000 Ada and Nvidia RTX 5000 Ada using PugetBench DaVinci Resolve | Standard Overalf Score. Performance per dollar calculated using SEP for individual AMD GPU(s) and USD pricing on NVIDIA.com for individual NVIDIA GPU(s) as of May 22, 2024, over the average performance scores in the titles above. Performance may vary based on factors including driver version and system configuration. RPW-464

RPW-465: Testing as of May 10, 2024 by AMD Performance Labs on a test system comprised of an AMD Ryzen Threadripper PRO 5945WX, 646B DDR4 RAM, Windows 11 Pro (Build: 22635.3130) 23H2, 64-bit, with AMD Radeon" PRO W7900 Dual Slot, vs. a similar system with Nvidia RTX 6000 Ada and Nvidia RTX 5000 Ada using SPECapc 3ds Max 2020 [GPU Composite Score Performance per dollar calculated using SEP for individual AMD GPU(s) and USD pricing on NVIDIA.com for individual NVIDIA CPU(s) as of May 22, 2024, over the average performance scores in the titles above. Performance may vary based on factors including driver version and system configurationRPW-465

RPW-466: Testing as of May 10, 2024 by AMD Performance Labs on a test system comprised of an AMD Ryzen Threadripper PRO 5945WX, 64CB DDR4 RAM, Windows 11 Pro (Build: 22635.3130) 23H2, 64-bit, with AMD Radeon<sup>®</sup> PRO W7900 Dual Slot, vs. a similar system with Nvidia RTX 6000 Ada and Nvidia RTX 5000 Ada using PCMark 10 | Digital Content Creation Score. Performance per dollar calculated using SEP for individual AMD GPU(s) and USD pricing on NVIDIA com for individual NVIDIA GPU(s) as of May 22, 2024, over the average performance scores in the titles above. Performance may vary based on factors including driver version and system configuration. RPW-466

RPW-470: Testing as of May 10, 2024 by AMD Performance Labs on a test system comprised of an AMD Ryzen Threadripper PRO 5945WX, 64GB DDR4 RAM, Windows 11 Pro (Build:22635.3130) 23H2, 64-bit, with AMD Radeon" PRO W7900 Dual Slot, vs. a similarly configured system with an Nvidia RTX 6000 Ada and Nvidia RTX 5000 Ada using SPECapc Solidworks 4K 2022 | CPU Composite Score. Performance per dollar calculated using SEP for individual AMD CPU(s) and USD pricing on NVIDIA.com for individual NVIDIA GPU(s) as of May 22, 2024, over the average performance scores in the titles above. Performance may vary based on factors including driver version and system configuration. RPW-470



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# Data Parallelism (1:1)

Optimized for multi-serving environments

Each GPU independently computes inference and outputs response

#### ER PERFORMANCE PER DOLLAR RADEON PRO W7900 vs. NVIDIA RTX 6000 ADA 1.38x RADEON PRO W7900 Baseline UNABLE TO RUN (INSUFFICIENT GPU MEMORY RADEON PRO W7900 RADEON PR0 W7900 See Endnote RPW-462 **NVIDIA RTX NVIDIA RTX** AMD Radeon™ PRO W7900 4090 Ada 6000 \$6.800 \$3.499

Llama3 70B-Q4 | ROCm 6.0 + vLLM (35GB)

Higher is better. Normalized to the RTX 6000 Ada

Performance (Token/s) per dollar

#### not designed, marketed nor recommended for datacenter usage

GD-239: Radeon" PRO Series and Radeon consumer graphics cards mentioned herein are not designed, marketed nor recommended for datacenter usage. Use in a datacenter setting may adversely affect manageability, efficiency, reliability, and/or performance. GD-239s

RPW-462: Testing as of May 10, 2024 by AMD Performance Labs on a test system comprised of an AMD Ryzen Threadripper PRO 5975WX, 64GB DDR4-2133Mhz RAM, Ubuntu OS, 64-bit, with AMD Radeon<sup>®</sup> PRO W7900 Dual Slot, vs. a similar system with Nvidia RTX 6000 Ada using Llama3 70b CPTO, Performance may vary based on factors including driver version and system configuration. RPW-462

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