

Develop & test workloads intended for large scale AMD Radeon Instinct™ deployments

Unleash discovery

AMD
R A D E O N P R O V I I



The era of compute & machine intelligence

The modern world is embracing a rapid rise in Deep Learning (DL) and High-Performance Compute (HPC) applications across several industries including life sciences, energy, finance, automotive, aerospace, academics, government, and more. With this brings a need for reliable and efficient server designs with higher levels of performance and accuracy to drive these demanding data center workloads. With AMD's innovative Radeon Instinct™ accelerators and the AMD ROCm™ open software platform, customers are rapidly adopting these system designs. The challenge is now becoming how to get access to cost-effective workstations based on these architectures for development and pre-deployment testing.

How can the AMD Radeon™ Pro VII help?

Powered by the same 7nm "Vega" architecture as the Radeon Instinct™ range of compute accelerators, Radeon™ Pro VII GPU-powered workstations are a dependable test environment for larger deployments. Built from the same technology platforms, the Radeon™ Pro VII GPU delivers exceptional double precision performance, hyper-fast HBM2 ECC memory, and ultra-high memory bandwidth.

Key specifications

'Vega' Architecture	60 Compute Units (3840 Stream Processors)
Memory Size	16GB High-Speed HBM2
PCIe® Interface Support	Gen 3.0 and 4.0 x16 compatible
Memory Bandwidth	Up to 1024 GB/s
Memory Interface	4096-bit HBM2
Double Precision Performance	Up to 6.5 TFLOPs (FP64)
Display Output	(6x) Mini-DisplayPort™ 1.4
Display Output Support (@60Hz)	6 @ 3840x2160 (4K) 3 @ 5120x2880 (5k) 1 @ 7680x4320 (8K)
Video Acceleration ¹	HEVC Encode (up to 4K) HEVC Decode (up to 8K)
Supported APIs	DirectX® 12, OpenGL® 4.6, OpenCL™ 2.0, Vulkan® 1.1, Shader Model 5.1, ROCm™ (Linux® Only)
Max Power Consumption	250 W
Form Factor	4.4" x 10.5" (H x L); Dual Slot
Supported Operating Systems (64-bit)	Microsoft Windows® 10, Linux®

Support for remote working

The AMD Radeon™ Pro VII supports the GPU-accelerated experience of AMD Remote Workstation² allowing you to access your physical workstation from virtually anywhere for unhindered productivity, with the remote workstation IP built into AMD Radeon™ Pro Software for Enterprise driver.

amd.com/RadeonProSoftware

AMD
RADEON PRO VII

More than a driver

This Radeon™ Pro VII graphics driver delivers enterprise-grade stability, performance, security features, and innovative features, including high-resolution screen capture, recording, and video streaming.

What is the Radeon Pro VII?

With 16GB of high-speed HBM2 memory, and support of up to six UHD display outputs, the AMD Radeon™ Pro VII GPU delivers exceptional performance in deep learning and HPC workflows. Access to the latest hardware on the Radeon™ Pro VII GPU brings enterprise class development capabilities to the workstation environment. The AMD Radeon™ Pro VII workstation graphics card is purpose-built to deliver high-class performance to researchers looking to efficiently program for local applications in addition to Radeon Instinct™ server deployments, all at an extremely reasonable price.

UP TO
6.5 TFLOPS
DOUBLE PRECISION PERFORMANCE
FOR HPC WORKLOADS

16GB HBM2 ECC
MEMORY FOR LARGE PROJECTS

UP TO
**13.1 TFLOPS
FP32**
PERFORMANCE FOR TRAINING
WORKLOADS

SUPPORT FOR
**6x UHD
Screens**
VIA MINI-
DISPLAYPORT™ 1.4

OVER
1TB/s
BANDWIDTH FOR MEMORY
INTENSIVE WORKLOADS

SUPPORT FOR
PCIe® 4.0
CRUSHING I/O
BOTTLENECKS



AMD
ROCm

Features 16GB HBM2 memory, 6x miniDP UHD outputs, PCIe® 4.0 interface support and blazing-fast 1TB/s memory bandwidth.

ROCm: open software platform

Combine this finely balanced and ultra-scalable solution with AMD's ROCm™ open ecosystem including a GPU programming model with support for OpenMP, HIP, OpenCL™ and leading industry frameworks such as TensorFlow and PyTorch for machine learning and Kokkos and RAJA for HPC. AMD is helping customers to accelerate code development and solve the toughest challenges in the world today in a fully open environment.

amd.com/ROCm

Why AMD:

AMD is proud to power the graphics behind many world-class workstations and mobile solutions, be at the heart of major games consoles beloved for gameplay and streaming video entertainment, to powering some of the world's fastest supercomputers for research, to driving business laptop performance. AMD already touches many areas of your life.

amd.com

To learn more about AMD professional graphics visit:

amd.com/RadeonPro

¹ HEVC (H.265), H.264, and VP9 acceleration are subject to and not operable without inclusion/installation of compatible HEVC players. GD-81

² Learn more at <https://www.amd.com/en/technologies/remote-workstation>.