AMD RYZEN™ PRO 7040 HS-SERIES PROCESSORS
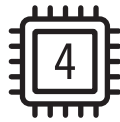## FOR DESKTOP-CLASS MOBILE WORKSTATIONS

AMD RYZEN PRO

The world's most advanced x86 processors[1], with a **new revolutionary AI engine** on select models providing premium AI collaboration experiences along with the **integrated Radeon™ PRO Graphics driver** and up to **eight high-performance cores** to tackle demanding professional workflows from design simulations, software development and rendering on-the-go.

ZEN 4
World's Fastest and Most Advanced Business Processor[1]

4nm
Amazing power efficiency for business laptop processor
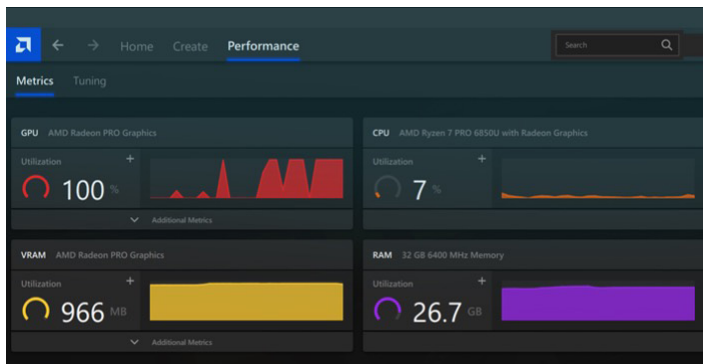
AMD RDNA3™
Powerful integrated graphics

AMD Ryzen™ AI
World's first integrated AI engine in an x86 processor[2]

PROFESSIONAL GRAPHICS

AMD Radeon™ PRO Settings Interface

ISV Application Certifications for leading design tools like:

ANSYS© | Autodesk AutoCAD© | PTC Creo© | Bentley MicroStation©
Siemens NX | Autodesk Revit© | Siemens Solid Edge© | Dassault SOLIDWORKS©

AMD Ryzen™ PRO 7040 Series processors feature the integrated Radeon™ PRO Graphics driver, bringing benefits to users of professional content creation applications, including:

- **Enterprise-Grade Quality and Reliability**
- **Optimizations for professional software applications**

AMD RYZEN™ AI – FULLY INTEGRATED IN CPU FOR OPTIMAL EFFICIENCY

Eye Gaze Correction

Portrait Blur

Auto Framing

Integrated AI Engine provides AI experiences with incredible battery life, speed, and quiet operation

Competing Platforms

CPU/ GPU + Separate AI Chip

AMD Integrated AI Engine

CPU + GPU + AI Chip
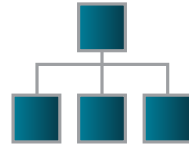
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AMD PRO TECHNOLOGIES

AMD PRO technologies, enabled on all PRO processors from AMD, help businesses and IT managers address challenges they face every day. From *SECURITY* features to *MANAGEABILITY* tools as well as providing *STABILITY, RELIABLITY & FLEXIBILITY,* AMD PRO technologies has got you covered.

AMD PRO SECURITY

Layers of built-in security features to help protect your sensitive data from today's sophisticated attacks
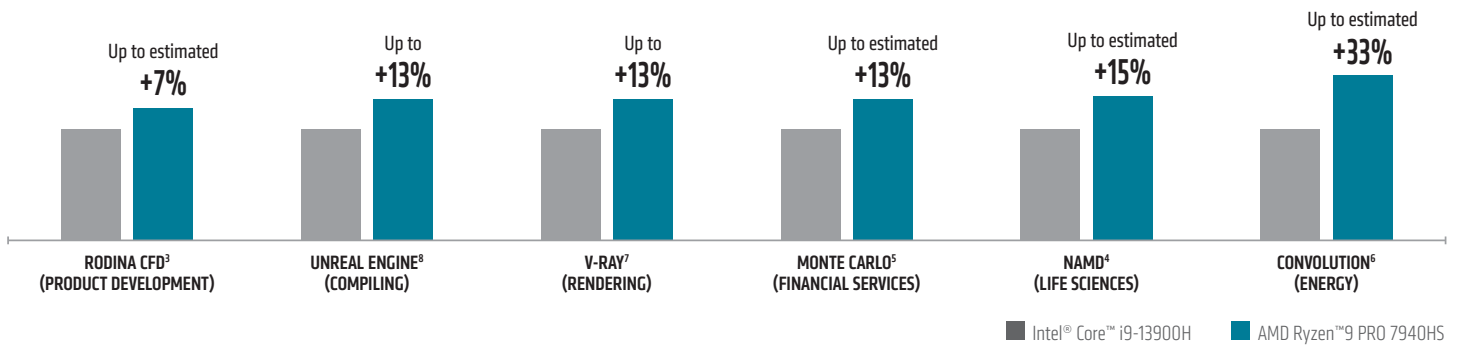
AMD PRO MANAGEABILITY

For simplified deployment, imaging, and management that is compatible with your current infrastructure.

AMD PRO BUSINESS READY

18 months of planned software stability.
24 months of planned availability for peace of mind.

HOW IT PERFORMS

Up to estimated
+7%
RODINA CFD[3]
(PRODUCT DEVELOPMENT)

Up to
+13%
UNREAL ENGINE[8]
(COMPILING)

Up to
+13%
V-RAY[7]
(RENDERING)

Up to estimated
+13%
MONTE CARLO[5]
(FINANCIAL SERVICES)

Up to estimated
+15%
NAMD[4]
(LIFE SCIENCES)

Up to estimated
+33%
CONVOLUTION[6]
(ENERGY)

■ Intel® Core™ i9-13900H   ■ AMD Ryzen™9 PRO 7940HS

MODEL SPECIFICATIONS

Model	Cores/Threads	Up to Boost[8] / Base Frequency	Cache L2+L3	Graphics	Node	TDP	Integrated AI Engine
AMD Ryzen™ 9 PRO 7940HS	8/16	5.2GHz/4.0GHz	24MB	AMD Radeon™ PRO Graphics	**4nm**	**45W**	✓
AMD Ryzen™ 7 PRO 7840HS	8/12	5.1GHz/3.8GHz	24MB	AMD Radeon™ PRO Graphics	**4nm**	**45W**	✓
AMD Ryzen™ 5 PRO 7640HS	6/12	5.0GHz/4.3GHz	22MB	AMD Radeon™ PRO Graphics	**4nm**	**45W**	✓

1. Based on a smaller node size of the AMD processor for an x86 platform, as of August 2022. GD-203
2. As of May 2023, AMD has the first and only available dedicated AI engine on an x86 Windows processor, where 'dedicated AI engine' is defined as an AI engine that has no function other than to process AI inference models and is part of the x86 processor die. Intel's newest 13th gen Windows-based x86 processors consist of Core i9, Core i7, Core i5, and Core i3 models listed here: https://www.intel.com/content/www/us/en/products/details/processors/core.html. None of these Intel x86 processor models have a dedicated AI engine, nor do 12th gen Intel Windows-based x86 processors. PHX-3.
3. HXP-18: Based on AMD performance lab testing as of 26 May, 2023 using the SPECworkstation® 3.1 Rodina (CFD) subtest metric to compare the performance of a Ryzen™ 9 PRO 7940HS reference system with integrated Radeon PRO graphics, 32GB RAM, 1TB SSD, Windows 11 PRO vs a DELL Precision 3480 with an Intel® Core™ i9-13900H NVIDIA RTX™ A2000 graphics card, 32GB RAM, 1TB SSD, Windows 11 PRO. Results may vary. PHXP-18
4. PHXP-19: Based on AMD performance lab testing as of 26 May, 2023 using the SPECworkstation® 3.1 NAMD subtest metric to compare the performance of a Ryzen™ 9 PRO 7940HS reference system with integrated Radeon PRO graphics, 32GB RAM, 1TB SSD, Windows 11 PRO vs a DELL Precision 3480 with an Intel® Core™ i9-13900H NVIDIA RTX™ A2000 graphics card, 32GB RAM, 1TB SSD, Windows 11 PRO. Results may vary. PHXP-19
5. PHXP-20: Based on AMD performance lab testing as of 26 May, 2023 using the SPECworkstation® 3.1 Monte Carlo subtest metric to compare the performance of an Ryzen™ 9 PRO 7940HS reference system with integrated Radeon PRO graphics, 32GB RAM, 1TB SSD, Windows 11 PRO vs a DELL Precision 3581 with an Intel® Core™ i9-13900H NVIDIA RTX™ A2000 graphics card, 32GB RAM, 1TB SSD, Windows 11 PRO. Results may vary. PHXP-20
6. PHXP-21: Based on AMD performance lab testing as of 26 May, 2023 using the SPECworkstation® 3.1 Convolution subtest metric to compare the performance of an Ryzen™ 9 PRO 7940HS reference system with integrated Radeon PRO graphics, 32GB RAM, 1TB SSD, Windows 11 PRO vs a DELL Precision 3581 with an Intel® Core™ i9-13900H NVIDIA RTX™ A2000 graphics card, 32GB RAM, 1TB SSD, Windows 11 PRO. Results may vary. PHXP-21
7. PHXP-22: Based on AMD performance lab testing as of 26 May, 2023 using the Chaos V-RAY benchmark to compare the performance of an AMD Ryzen™ 9 PRO 7940HS reference system with integrated Radeon PRO graphics, 32GB RAM, 1TB SSD, Windows 11 PRO vs a DELL Precision 3581 with an Intel® Core™ i9-13900H NVIDIA RTX™ A2000 graphics card, 32GB RAM, 1TB SSD, Windows 11 PRO. System manufacturers may vary configurations, yielding different results. PHXP-22
8. PHXP-40: Based on AMD performance lab testing as of 10 June, 2023 using Unreal Engine 5.1 Compilation to compare the performance of an Ryzen™ 9 PRO 7940HS reference system with integrated Radeon PRO graphics, 32GB RAM, 1TB SSD, Windows 11 PRO vs a DELL Precision 3581 with an Intel® Core™ i9-13900H NVIDIA RTX™ A2000 graphics card, 32GB RAM, 1TB SSD, Windows 11 PRO. Results may vary. PHXP-40
9. Max boost for AMD Ryzen processors is the maximum frequency achievable by a single core on the processor running a bursty single-threaded workload. Max boost will vary based on several factors, including, but not limited to: thermal paste; system cooling; motherboard design and BIOS; the latest AMD chipset driver; and the latest OS updates. GD-150

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