



NVIDIA Ada Lovelace Breaks Energy-Efficiency Barrier, Supercharges 170+ Laptop Designs for Gamers and Creators

GeForce RTX 40 Series Laptops Deliver Performance of Highest End Desktop PCs With Biggest Generation Leap, DLSS 3 and 5th-Gen Max-Q Technology

CES—NVIDIA today announced [GeForce RTX™ 40 Series laptops](#), powered by its ultra-efficient Ada Lovelace GPU architecture, which delivers the company's largest-ever generational leap in performance and power efficiency.

The new GeForce RTX 40 Series laptops are up to 3x more power efficient than the previous generation and bring the Ada architecture, [NVIDIA DLSS 3](#) and fifth-generation Max-Q technologies to laptops for the first time. For gamers, RTX 40 Series laptops deliver up to 4x the performance in AAA games like full ray-traced *Cyberpunk 2077* with new RT Overdrive Mode, and, for creators, they offer blazing-fast acceleration in top creative apps such as Blender.

"With the Ada architecture, we set out to transform the performance and power efficiency of gaming and creator laptops," said Jeff Fisher, senior vice president of the GeForce business at NVIDIA. "The new RTX 40 Series delivers enthusiast-class performance in laptops as slim as 14 inches, a new milestone."

RTX 4090 and RTX 4080: A New Class of Flagship Laptops

The Ada architecture has also enabled a new class of enthusiast laptops that are the world's fastest. Gamers can play on three 4K monitors for surround gaming at 60 frames per second — enough to power a professional-grade driving simulator. Creators can use the [NVIDIA Omniverse™ platform](#) for photorealistic, 3D virtual world building at 4K with fully simulated physics, lighting and materials. Streamers can livestream games at 4K 60 fps with AV1 encoding to Discord, and Ada's new dual encoders cut video export time in half. RTX 40 Series flagship laptops start at \$1,999 and will be available beginning Feb. 8.

RTX 4070, 4060, 4050 Laptops: Faster Than Last-Generation Flagship at One-Third the Power

The new RTX 4070, 4060 and 4050 laptops are faster than the previous-generation flagship model, using as little as one-third the GPU power. They deliver 80 fps, 1440p ultra-gaming and transform creation processes like rendering scenes in Blender, which used to take two and a half hours, to just 10 minutes. RTX 4050 laptops start at \$999 and will be available beginning Feb. 22.

Fifth-Generation Max-Q Technologies Improve Laptop Efficiency

With each new GPU generation since 2017, advancements in Max-Q technology have improved laptop design. Today, alongside the launch of the GeForce RTX 40 Series laptops, NVIDIA is introducing its fifth-generation Max-Q technologies, which radically enhance efficiency and accelerate gaming performance using the following upgrades:

- [NVIDIA® DLSS 3](#) has been optimized for laptops and built into Max-Q technologies, including Whispermode and BatteryBoost, which improve performance, acoustics and battery life by up to 2x.
- The lowest voltage GDDR6 memory ever, shipped in partnership with leading manufacturers.
- Tri-speed memory control enables the GPU to switch to newer, lower-power memory states dynamically.
- Ada's on-chip memory has been optimized for Max-Q, doubling the bandwidth, increasing the size by 16x and improving clock gating.

14-Inch Laptops More Powerful Than Ever

Before the introduction of the Ada architecture, 95% of this fastest-growing laptop segment was limited to basic tasks and apps. Equipped with GeForce RTX 40 Series Laptop GPUs, 14-inch laptops can take on tasks that were previously impossible, such as ultra-fast 3D rendering in Blender and cutting-edge AI tools in popular apps like Adobe Photoshop or Premiere Pro.

Powered by RTX 40 Series Laptop GPUs, 14-inch laptops are also gaming powerhouses, up to twice as fast as a PlayStation 5 but one-sixth the size. Gamers can play graphically intense AAA games, like *Cyberpunk 2077*, with ray tracing and DLSS. Connecting the ultra-portable laptops to external monitors turns them into desktop-class gaming rigs or creator studios.

Purpose-Built for 110 Million Creators

The creator market continues to grow rapidly, surpassing more than 110 million professional and hobbyist PC creators. And 3D creation on NVIDIA hardware, specifically, is showing staggering growth — with a 42 percent increase since last year.

Laptops with GeForce RTX 40 Series Laptop GPUs take advantage of the NVIDIA Studio ecosystem with RTX and Max-Q

technologies to offer the ideal combination of efficiency and performance. The improved efficiency accelerates even the most demanding workflows with up to 3x longer battery life.

GeForce RTX laptop users benefit from NVIDIA Studio accelerations in over 110 of the most popular creative apps — plus exclusive access to AI-powered apps like [NVIDIA Omniverse](#), [Canvas](#) and [Broadcast](#). 3D artists can collaborate with one another in Omniverse from anywhere in the world, while video editors can produce on location faster with AI tools and cut export times in half with dual encoders.

Availability

GeForce RTX 40 Series laptops will be available starting Feb. 8 from the world's top manufacturers, including Acer, Alienware, ASUS, Dell, GIGABYTE, HP, Lenovo, MSI, Razer and Samsung. They will also be available from local makers and system builders, including CyberPower PC, Eluktronics, Hasee, PC Specialist 3XS by Scan and Schenker, with more coming in Q1.

Pricing, configurations and availability will vary among regions and partners. Press assets, including product photographs, specifications, chip and die shots and other materials, are available on the NVIDIA press site at www.nvidia-press.com.

About NVIDIA

Since its founding in 1993, [NVIDIA](#) (NASDAQ: NVDA) has been a pioneer in accelerated computing. The company's invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined computer graphics, ignited the era of modern AI and is fueling the creation of the metaverse. NVIDIA is now a full-stack computing company with data-center-scale offerings that are reshaping industry. More information at <https://nvidianews.nvidia.com/>.

Certain statements in this press release including, but not limited to, statements as to: the benefits, impact, performance, features, and availability of our products, collaborations and technologies including NVIDIA Ada Lovelace, GeForce RTX 40 Series, DLSS 3, Max-Q technologies, NVIDIA Omniverse, NVIDIA Studio, Canvas, and Broadcast; the creator market continuing to grow rapidly; and 3D creation on NVIDIA hardware, specifically, showing staggering growth are forward-looking statements that are subject to risks and uncertainties that could cause results to be materially different than expectations. Important factors that could cause actual results to differ materially include: global economic conditions; our reliance on third parties to manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing product and technologies; market acceptance of our products or our partners' products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into systems; as well as other factors detailed from time to time in the most recent reports NVIDIA files with the Securities and Exchange Commission, or SEC, including, but not limited to, its annual report on Form 10-K and quarterly reports on Form 10-Q. Copies of reports filed with the SEC are posted on the company's website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

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