



NVIDIA Ampere Architecture Powers Record 70+ New GeForce RTX Laptops

GeForce RTX 30 Series Laptop GPUs Offer Up to 2x Efficiency, 3rd Gen Max-Q Technology, Start at \$999

A new era of laptops begins today featuring the NVIDIA Ampere architecture, with the launch of 70+ models powered by GeForce® RTX™ 30 Series Laptop GPUs.

These next-gen laptops, which start at \$999, increase energy efficiency by up to 2x, accelerate performance dramatically and introduce third-generation Max-Q technologies for thin and lightweight designs.

The new RTX 30 Series Laptop GPUs deliver stunning ray-traced gaming experiences in *Cyberpunk 2077* and other top titles, and enable content creators to produce incredible work using hundreds of GPU-accelerated apps.

“After taking the desktop market by storm, our NVIDIA Ampere architecture is now powering the world’s fastest laptops,” said Kaustubh Sanghani, vice president and general manager of GeForce OEM at NVIDIA. “Nowhere does power efficiency matter more than in gaming laptops, a market that’s grown 7x in the past seven years. These new thin and light systems are based on our Max-Q technologies, where every aspect — CPU, GPU, software, PCB design, power delivery, thermals — is optimized for power and performance.”

Global availability starts later this month with GeForce RTX gaming and creator laptops featuring GeForce RTX 3080 and GeForce RTX 3070 Laptop GPUs, followed by laptops with the GeForce RTX 3060 Laptop GPU.

- **GeForce RTX 3060** delivers 90 frames per second on the latest games with ultra settings at 1080p. RTX 3060 laptops start at \$999 and are faster than laptops featuring NVIDIA’s previous flagship GPU, GeForce RTX 2080 SUPER, which typically sell for \$2,500.
- **GeForce RTX 3070** is a 1440p gaming beast, delivering 90 frames per second with ultra settings at 1440p. RTX 3070 laptops start at \$1,299 and are 50 percent faster than those equipped with the RTX 2070.
- **GeForce RTX 3080** is NVIDIA’s new flagship laptop GPU. With up to 16GB of G6 memory, it powers the world’s fastest laptops for gamers and creators. It delivers 100+ frames per second with ultra settings at 1440p. Systems featuring the RTX 3080 start at \$1,999.

Third-Gen Max-Q Tech Delivers Optimal Power and Performance

The third generation of Max-Q technologies uses AI and new system optimizations to make high-performance gaming laptops faster and better than ever. These include:

- **Dynamic Boost 2.0:** Traditionally, gaming laptops set the power for the CPU and GPU. Yet, games and creative apps are dynamic, and demands on the system change from frame to frame. With Dynamic Boost 2.0, AI networks balance the power between the CPU, GPU and now, GPU memory, depending on where it is needed the most — constantly optimizing for maximum performance.
- **WhisperMode 2.0:** Delivering a new level of acoustic control for gaming laptops, WhisperMode has been reengineered from the ground up and is custom built into each laptop. Once the desired acoustics are selected, WhisperMode 2.0’s AI-powered algorithms manage the CPU, GPU, system temperatures and fan speeds to deliver great acoustics at the best possible performance.
- **Resizable BAR:** This advanced PCI Express technology enables all of the GPU memory to be accessed by the CPU at once, providing a performance boost in many games.
- **NVIDIA DLSS:** NVIDIA Deep Learning Super Sampling uses AI and RTX Tensor Cores to deliver up to 2x the performance at the same power. For a single 1440 frame, a GPU needs to calculate almost 4 million pixels. NVIDIA DLSS requires only a fraction of the pixels, which improves efficiency and increases performance.

Award-Winning NVIDIA Ampere Architecture, Plus New Ways to Play

The new laptop GPUs feature NVIDIA Ampere architecture streaming multiprocessors, which offer 2x FP32 throughput, delivering vastly improved performance with improved performance per watt. These include new dedicated RT Cores delivering 2x the throughput of the previous generation, and new third-generation Tensor Cores, with up to 2x the throughput of their predecessors, to power NVIDIA DLSS, which accelerates performance.

The new laptops also include new tools for gamers and creators, including [NVIDIA Broadcast](#), which harnesses AI to turn any room into a home broadcast studio; [NVIDIA Reflex](#), which makes competitive games quicker; [GeForce Experience™](#), to capture and share videos, screenshots and livestreams with friends; and [NVIDIA Studio](#), for acceleration and optimization of demanding creator apps.

Esports Laptops Play at 240+ FPS

Nearly three-quarters of laptop gamers play esports, spurring the popularity of high-refresh-rate laptops, sales of which doubled last year. Over half of the new GeForce RTX 30 Series laptops will offer 240Hz or higher refresh rates.

With the performance of the GeForce RTX 3080 Laptop GPU, gamers will be able to play at 240 frames per second across top titles like *Overwatch*, *Rainbow Six*, *Valorant* and *Fortnite*. And with NVIDIA Reflex, gamers can achieve sub-20ms system latency, enabling them to play their absolute best.

GeForce RTX 30 Series Studio Laptops

With the help of the NVIDIA Ampere architecture, rendering on Studio laptops is now up to twice as fast as the previous generation and up to 30x faster than CPU. Video editors can work with 8K RAW footage, use AI to simplify workflows and reduce encode times by up to 75 percent. Artists can take advantage of up to 16GB of graphics memory to work with huge assets or multiple apps simultaneously.

Using new third-generation Max-Q technologies, OEM partners ASUS, Gigabyte, MSI and Razer are launching new NVIDIA Studio laptops with the new GeForce RTX 30 Series Laptop GPUs.

Availability

GeForce RTX 30 Series laptops will be available starting Jan. 26 from the world's top OEMs, including Acer, Alienware, ASUS, Gigabyte, HP, Lenovo, MSI and Razer. They will also be available from local OEMs and system builders, including Aftershock, CyberPower PC, Digital Storm, Eluktronics, Falcon NW, Hasee, Maingear, Mechrevo, Mouse, Origin PC, PC Specialist, Scan, Schenker, Terrans Force and Thunderobot, XOTIC PC. 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

[NVIDIA](http://www.nvidia.com)'s (NASDAQ: NVDA) invention of the GPU in 1999 sparked the growth of the PC gaming market and has redefined modern computer graphics, high performance computing and artificial intelligence. The company's pioneering work in accelerated computing and AI is reshaping trillion-dollar industries, such as transportation, healthcare and manufacturing, and fueling the growth of many others. More information at <https://nvidianews.nvidia.com/>.

Certain statements in this press release including, but not limited to, statements as to: the number of laptops featuring the NVIDIA Ampere architecture; the performance, benefits, abilities and availability of next-generation GeForce laptops and what they enable; the world's fastest growing gaming platform; NVIDIA Ampere architecture powering the world's fastest laptops; the benefits, performance and abilities of the Max-Q design approach, NVIDIA DLSS, Dynamic Boost 2.0 andResizable BAR; Max-Q being optimized for power and performance; the performance and benefits of the NVIDIA Ampere architecture multiprocessors used by GeForce laptops, RT Cores, Tensor Cores, NVIDIA Reflex, GeForce Experience and NVIDIA Studio and what they enable; the number of gamers using the GeForce Experience; the number of laptop gamers that play esports; the sales rate of laptops; the number of GeForce RTX 30 Series laptops that will offer 240Hz or higher refresh rates; GeForce RTX 3080 laptop GPUs enabling gamers to play titles at high frame rates per second and NVIDIA Reflex enabling fast rates of system latency; the performance increased enabled by the NVIDIA Ampere architecture; the OEM partners launching NVIDIA Studio laptops; the availability of GeForce RTX 30 Series laptops, the OEMs and systems builders offering them and the variance in pricing, configurations and availability 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.

© 2021 NVIDIA Corporation. All rights reserved. NVIDIA, the NVIDIA logo, GeForce, GeForce Experience, GeForce RTX, NVIDIA RTX, and NVIDIA Studio are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries. MaxQ is the registered trademark of Maxim Integrated Products, Inc. Other company and product names may be trademarks of the respective companies with which they are associated. Features, pricing, availability and specifications are subject to change without notice.

Kelly Musgrave
Senior Manager, Consumer PR

NVIDIA Corporation
+1-650-421-3748
kmusgrave@nvidia.com