# NVIDIA launches Blackwell architecture GPUs for AI and blockchain



NVIDIA has recently announced the launch of its latest graphics processing units (GPUs), powered by the cutting-edge Blackwell architecture, which marks a significant advancement in artificial intelligence (AI) and cryptocurrency technology. The unveiling took place on January 30, 2024, showcasing a series of GPUs that promise to deliver unprecedented performance and efficiency to industries relying on high-speed computing.

At the forefront of this launch is the flagship RTX 5090, which boasts a staggering performance capability of 3,352 trillion operations per second (TOPS), made possible through the integration of an impressive 92 billion transistors. In addition to this remarkable power, the RTX 5090 also achieves a 40% increase in power efficiency in its mobile segment, making it an attractive option for businesses and developers looking to enhance their computing capabilities without significantly increasing energy consumption.

The pricing for the new RTX series has been set to reflect their high-end specifications, with the RTX 5090 retailing at $1,999. Alongside this flagship model, NVIDIA is also launching a suite of more affordable options aimed at a broader market. These include the RTX 5080, offering 1,801 TOPS for $999, and the RTX 5070 Ti, delivering 1,406 TOPS for $749, both available from January 30, 2024. The lower-tier RTX 5070, capable of 988 TOPS, will be available in February for $549.

NVIDIA's dominance in the market is underscored not only by its sales figures but also by the critical role its technology plays in sectors like blockchain. The GPUs are fundamental in operations such as validating transactions within proof-of-work networks, processing smart contracts, supporting decentralised applications, mining cryptocurrencies, and facilitating the computing needs of the emerging meta-universe.

Despite the announced advances, NVIDIA faces increasing competition from application-specific integrated circuit (ASIC) processor manufacturers, which provide essential solutions for certain blockchain networks. However, NVIDIA's unique advantages and established presence in AI and blockchain technology suggest that it will remain a key player in these industries.

As the new products begin to hit the market, there is anticipation surrounding usability and performance—paramount factors for consumers that could determine the success of these latest offerings. Feedback from early adopters will be closely watched as industries continue to seek efficient and powerful computing solutions amid growing demands.

The launch of NVIDIA's new Blackwell architecture GPUs is seen as a timely development for the AI and blockchain sectors. The ongoing need for robust and fast computing suggests that the demand for such technologies will persist, if not increase, moving forward.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.crn.com/news/components-peripherals/2024/nvidia-reveals-next-gen-blackwell-gpus-promised-to-unlock-breakthroughs-in-genai> - Corroborates the announcement of NVIDIA's next-generation Blackwell GPU architecture and its promised performance and efficiency improvements.
2. <https://www.dexerto.com/tech/nvidia-rtx-5090-2301788/> - Provides specifications and performance details of the NVIDIA GeForce RTX 5090, including its transistor count and AI operations per second.
3. <https://nvidianews.nvidia.com/news/nvidia-blackwell-geforce-rtx-50-series-opens-new-world-of-ai-computer-graphics> - Details the performance capabilities of the GeForce RTX 5090, including its transistor count and the improvements in AI operations and power efficiency.
4. <https://nvidianews.nvidia.com/news/nvidia-blackwell-geforce-rtx-50-series-opens-new-world-of-ai-computer-graphics> - Explains the integration of NVIDIA DLSS 4 and its impact on performance, as well as the extended battery life in mobile devices.
5. <https://www.crn.com/news/components-peripherals/2024/nvidia-reveals-next-gen-blackwell-gpus-promised-to-unlock-breakthroughs-in-genai> - Describes the architectural advancements of the Blackwell GPUs, including the use of a custom-built manufacturing process and the increased transistor count.
6. <https://www.dexerto.com/tech/nvidia-rtx-5090-2301788/> - Lists the specifications of the GeForce RTX 5090, such as CUDA cores, memory, and memory speed.
7. <https://nvidianews.nvidia.com/news/nvidia-blackwell-geforce-rtx-50-series-opens-new-world-of-ai-computer-graphics> - Highlights the performance and efficiency improvements of the Blackwell architecture in both desktop and laptop configurations.
8. <https://www.crn.com/news/components-peripherals/2024/nvidia-reveals-next-gen-blackwell-gpus-promised-to-unlock-breakthroughs-in-genai> - Discusses the role of the new numerical format (FP4) in enhancing AI performance and model size on Blackwell GPUs.
9. <https://nvidianews.nvidia.com/news/nvidia-blackwell-geforce-rtx-50-series-opens-new-world-of-ai-computer-graphics> - Mentions the broader market options, such as the RTX 5080 and RTX 5070 Ti, and their respective performance capabilities.
10. <https://www.dexerto.com/tech/nvidia-rtx-5090-2301788/> - Provides context on the pricing and availability of the new RTX series, including the flagship RTX 5090 and other models.
11. <https://www.crn.com/news/components-peripherals/2024/nvidia-reveals-next-gen-blackwell-gpus-promised-to-unlock-breakthroughs-in-genai> - Explains NVIDIA's role in sectors like blockchain, including transaction validation, smart contract processing, and cryptocurrency mining.
12. <https://news.google.com/rss/articles/CBMiuwFBVV95cUxQVmdVbV81SGZRdUxETWh6V1V6TFQ2WEt3SWYxM2dnRk1KZkNOaWhpanRCdzVNRUR2Q0NZUWNmMDg0NnhrVDliQXlCZ21LU3RnZEFmRmpNUXZFNVhZWEt5SHB0Slh1bktCNGpIcjhMbWpsVDZjcWluUHo1RUltWjltTUlFOTFjWjBBZ0xMTC1mdXFwSndsMldfYzFtcDh4UzlScnFIMjBCZ250Y2VDNUNnQ0xMNXV6cHM0NS1r?oc=5&hl=en-US&gl=US&ceid=US:en> - Please view link - unable to able to access data