



NVIDIA Launches AI Computing Platform for Medical Devices and Computational Sensing Systems

Clara Holoscan MGX Medical-Grade Platform With NVIDIA Orin and NVIDIA AI Software Stack Powers Systems Built by Embedded-Computing Leaders

GTC—NVIDIA today introduced [Clara Holoscan MGX™](#), a platform for the medical device industry to develop and deploy real-time AI applications at the edge, specifically designed to meet required regulatory standards.

Clara Holoscan MGX expands the [Clara Holoscan platform](#) to provide an all-in-one, medical-grade reference architecture, as well as long-term software support, to accelerate innovation in the medical device industry. It brings a new level of sensor innovation to edge computing by processing high-throughput data streams for real-time insights. From robotic surgery to studying new approaches to biology, surgeons and scientists need medical devices to evolve into continuous sensing systems to research and treat disease.

“Deploying real-time AI in healthcare and life sciences is critical to enable the next frontiers in surgery, diagnostics and drug discovery,” said Kimberly Powell, vice president of healthcare at NVIDIA. “Clara Holoscan MGX, with its unique combination of AI, accelerated computing and advanced visualization, accelerates the productization of AI and provides software-as-a-service business models for the medical device industry.”

As part of Clara Holoscan MGX, NVIDIA provides hardware reference design with long-life NVIDIA components and 10-year long-term software support, including IEC62304 documentation for software and IEC60601 attestation reports from embedded computing partners.

[ADLINK](#), [Advantech](#), [Dedicated Computing](#), [Kontron](#), [Leadtek](#), [MBX Systems](#), [Onyx Healthcare](#), [Portwell](#), [Prodrive Technologies](#), [RYOYO Electro](#) and [Yuan High-Tech](#) will be the first embedded-computing manufacturers to build products based on the Clara Holoscan MGX reference design to serve the needs of the global medical device industry.

Some of the largest medical devices makers and dozens of robotic surgery and medical imaging startups are already developing on the Clara Holoscan platform.

Product Specifications

Clara Holoscan MGX brings together the high-performance NVIDIA Jetson AGX Orin™ Industrial module, NVIDIA RTX™ A6000 GPU and [NVIDIA ConnectX-7® SmartNIC](#) network adapter into a scalable AI platform providing up to 254-619 trillion operations per second of AI performance.

For high-throughput instruments, ConnectX-7 provides up to 200 GbE bandwidth and a [GPUDirect® RDMA](#) path to GPU processing, which helps enable faster processing. It also integrates the latest in embedded security with a safety and security module, consisting of controllers to monitor critical operations, provide remote software updates and system recovery, and hardware root of trust to provide state-of-the-art embedded security.

Medical device makers can directly embed Clara Holoscan MGX or connect to the existing install base of medical devices, which allows developers to accelerate AI deployment and regulatory clearance.

The Clara Holoscan SDK is specifically designed for high-performance streaming applications to build the next generation of software-defined instruments. It brings together pretrained models, as well as a framework for scalable microservices, to allow applications to be managed and deployed both on device and on the edge data center, ushering in the software-as-a-service business model for the industry.

Clara Holoscan extends from medical devices to NVIDIA edge servers to [NVIDIA DGX™ systems](#) in the cloud or the data center.

[Clara Holoscan developer kits](#) are available today. Join the [interest list for Clara Holoscan MGX](#) to get notified about availability.

To learn more about Clara Holoscan MGX, watch the [GTC 2022 keynote](#) from NVIDIA CEO Jensen Huang. [Register for GTC for free](#) to attend [sessions](#) with NVIDIA and industry leaders.

About NVIDIA

[NVIDIA](#)'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 benefits, impact, and performance of our products and technologies, including Clara Holoscan MGX, the Clara Holoscan platform, NVIDIA Jetson AGX Orin, NVIDIA RTX A6000 GPU and NVIDIA ConnectX-7 SmartNIC; deploying real-time AI in healthcare and life sciences being critical to enable the next frontiers in surgery, diagnostics and drug discovery; embedded-computing manufacturers building products based on the Clara Holoscan MGX reference design; and the next generation of software-defined instruments 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.

© 2022 NVIDIA Corporation. All rights reserved. NVIDIA, the NVIDIA logo, AGX Orin, ConnectX, DGX, GPUDirect, NVIDIA Clara Holoscan MGX and NVIDIA RTX are trademarks and/or registered trademarks of NVIDIA Corporation and/or Mellanox Technologies in the U.S. and other countries. All other trademarks and copyrights are the property of their respective owners. Features, pricing, availability, and specifications are subject to change without notice.

Janette Ciborowski
+1-734-330-8817
jciborowski@nvidia.com