

Advantech Leads the Next Wave of Safe, Intelligent Automation Across Robotics, Factories, and Medical Systems with MIC-735, Accelerated by NVIDIA IGX Thor

Taipei, Taiwan, October 29th, 2025 — Advantech today announced the launch of its next generation MIC-735 AI inference system, built on the industrial-grade and enterprise-ready [NVIDIA IGX Thor](#). Strengthening its collaboration with NVIDIA and ecosystem partners, Advantech is driving the adoption of physical AI, bringing real time intelligence, functional safety and autonomous decision making to robotics and healthcare environments.

Unleashing Physical AI Through Holoscan Integration

Advantech's latest innovation integrates [NVIDIA Holoscan](#) platform with its proprietary Holoscan Sensor Bridge, enabling seamless, high-bandwidth sensor connectivity, and ensuring interoperability for real time communication between multiple sensors and AI processors. This architecture transforms the MIC-735 into the "neural hub" of next generation robotics and medical systems, connecting cameras, sensors, and AI models through the NVIDIA IGX T5000 module to deliver safety critical AI inference and ultra-low latency control.

Purpose-Built for Robotics and Healthcare Systems

Designed for industrial robots, autonomous mobile robots (AMRs), and AI driven medical devices such as endoscopic and surgical visualization systems, the MIC-735 ensures stable operation from -30°C to $+60^{\circ}\text{C}$. It supports functional safety MCU modules and 5G/ QSFP 4x25 GbE interfaces, ensuring high speed, coordinated sensor actuator communication so robots and instruments can sense, think, and act safely and autonomously.

The MIC-735 also features a MIPI interface that enables direct camera connectivity or integration with Advantech's Holoscan Sensor Bridge, allowing seamless connection to multiple imaging sensors, ensuring high-throughput data exchange between sensors and the NVIDIA IGX Thor for real-time inference and control.

Advantech to Showcase at Smart City Expo Barcelona 2025

Advantech invites global partners, developers, and innovators to explore the full potential of AI at the edge at Smart City Expo Barcelona 2025, from November 4 to 6. During the event, Advantech will demonstrate its full lineup of AI systems accelerated by NVIDIA Jetson and IGX Thor modules, including the MIC-735 and MIC-742-AT, which delivers a robust platform for edge vision, robotics, and healthcare applications.

MIC-735 Highlights



- Embedded with NVIDIA IGX Thor Module up to 2,070 FP4 TFLOPS
- QSFP 4x25G and 1 x 5G Ethernet support
- Functional Safety MCU module ready
- Rugged design for -30°C to $+60^{\circ}\text{C}$ operation
- Integrated Holoscan Sensor Bridge optimizing robotic data flow