

NEXCOM EBC 370 Powers Autonomous Robotics for Industrial Applications

Highly Efficient, Edge AI Computing Delivered in a Compact New CPU

FREMONT, CA, UNITED STATES, June 17, 2025 /EINPresswire.com/ -- NEXCOM, a leading global supplier of embedded systems, announced today the launch of the EBC 370/EBC 370X, providing Edge AI computing within a compact 3.5" form factor for smooth multitasking and real-time data processing. Designed for highperformance computing, advanced AI processing, and robotics control in space-constrained environments, the EBC 370 excels in powering advanced visual computing, enhancing deep learning capabilities, real-time image processing, and autonomous robotics.



Powered by 13th Gen Intel[®] Core[™] processors and Intel[®] Iris[®] X□ Graphics, the EBC 370 delivers Edge AI computing within a compact 3.5-inch single board computer (SBC). With support for up to 32GB DDR5 RAM, it offers exceptional processing capabilities for high-performance computing, AI processing, and robotic control in space-constrained environments. To ensure smooth multitasking and real-time data processing, it is equipped with an MXM slot for additional GPU and AI accelerator support.

"The EBC 370/EBC 370X is an AI-powered, PC-based controller designed to adapt to the most demanding conditions. Research labs use it as the main control unit for advanced robotics systems," said Peter Yang, President of NEXCOM. "The high-performance CPU provides the processing power that robotics engineers need, and delivers stable operations within dynamic industrial operating environments and space-constrained settings."

Its compact form factor allows seamless integration into humanoid and quadruped robots, as well as automated inspection systems, CNC machines, and smart manufacturing equipment. The

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EBC 370 features an MXM slot that accommodates additional graphics cards or accelerators to power advanced AI development. This allows for simple integration of modular GPUs, enabling optimal graphics capabilities in limited space without the bulk of full-sized PCIe cards. Systems with MXM slots can upgrade GPUs without replacing the entire board, future-proofing deployments and allowing flexible adaptation to evolving performance needs.

NEXCOM's EBC 370 delivers real-time motion control for autonomous robotics, with an M.2 slot for high-speed

wireless connectivity through integrated 5G/LTE modules. It offers 4 x 2.5GbE LAN ports, enabling high-speed connection to multiple IP cams, including facilitating high-speed object detection and recognition. Its 3 x USB 3.2 Gen2 ports support LiDAR modules and depth cameras, helping Autonomous Mobile Robots (AMRs) navigate environments without human supervision, no matter the conditions. For deployment in challenging environments, the EBC 370X features a wide operating temperature range of -20°C to 70°C. In addition, multiple RS-232/422/485 COM ports provide compatibility with a broad range of devices and peripherals, meeting diverse industrial requirements.

To learn more, pls visit NEXCOM website.

Features:

- □ Intel[®] 13th Gen Intel[®] Core[™] i7 processor, 15W, 28W
- □ 1 x MXM slot (PCIe x4 LANS for MXM GPU card support)
- 1 x DDR5 5200 SO-DIMM, non-ECC, up to 32GB
- □ 4 x 2.5 GbE LAN
- 2 x RS-232, 2 x RS-232/422/485, 16-bit GPIO (8 IN, 8 OUT)
- 1 x M.2 Key B for 5G/LTE module, 1 x M.2 Key M for storage
- □ TPM 2.0

About NEXCOM

Founded in 1992, NEXCOM integrates its capabilities and operates eight global businesses, which are Industrial Mesh, Intelligent Platform @ Smart City, Intelligent Video Security, Mobile Computing Solutions, Medical and Healthcare Informatics, Network and Communication Solutions, Smart Manufacturing, and Open Robotics and Machinery. This strategic deployment enables NEXCOM to offer time-to-market, time-to-solution products and services without compromising cost.

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