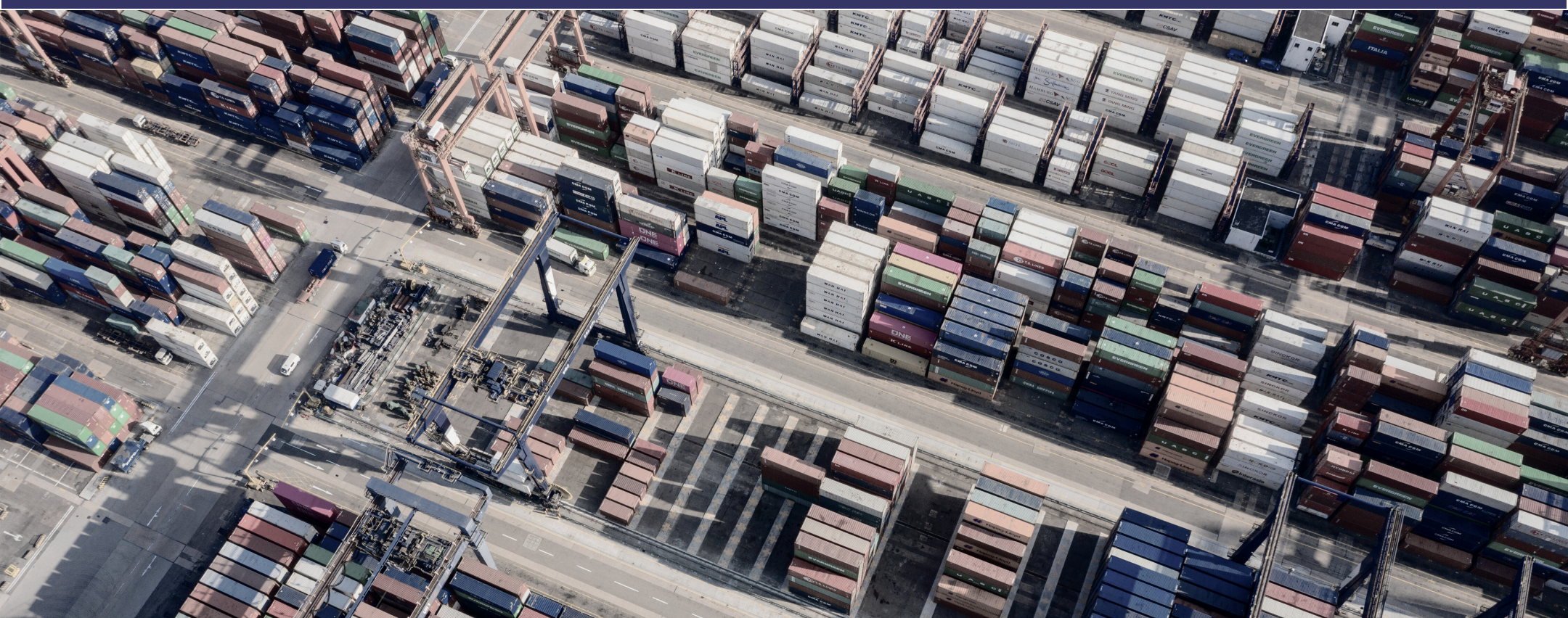




CASE STUDY

LogiPort's partnership with Embedded Technologies



OVERVIEW

This case study explores how LogiPort, a leader in automated warehouse and logistics solutions, integrated the BOXER-6647-MTH into its fleet of Autonomous Mobile Robots (AMRs) and smart conveyor systems. The BOXER-6647-MTH delivers real-time edge processing, AI-driven task execution, and robust operation in demanding industrial settings.

With a commitment to transforming warehouse logistics, LogiPort develops scalable, automated solutions for high-throughput distribution centres across retail, manufacturing, and e-commerce. Their mission: to accelerate order fulfilment, minimise downtime, and increase operational safety through smart automation.

BACKGROUND



LogiPort operates large-scale fulfilment centres where precision, uptime, and scalability are key. Their next-generation AMRs and edge-driven conveyor systems required an embedded computing platform capable of:

- Handling AI-based navigation and task scheduling
- Operating 24/7 in dust- and vibration-heavy warehouse floors
- Supporting multiple peripheral devices (sensors, cameras, actuators)
- Enabling remote monitoring and fast maintenance turnaround

CHALLENGES

- **Edge AI Processing:** The need for real-time local processing to reduce network latency and increase robot autonomy.
- **Harsh Environments:** Exposure to dust, temperature variation, and floor vibration across dynamic warehouse operations.
- **Flexible I/O:** Seamless connection with LIDAR, depth cameras, control interfaces, and wireless communication modules.
- **Tool-Free Maintenance:** Quick storage replacement and minimal downtime during system upgrades.



SOLUTION

To address these needs, LogiPort used the BOXER-6647-MTH, a compact, fanless industrial PC featuring Intel® Core™ Ultra processors with integrated NPU. With the key advantages:

- Rich I/O Options: Multiple USB 3.2 ports, 2.5GbE LAN, and serial interfaces support all necessary peripheral devices.
- Wireless-Ready: With M.2 slots for Wi-Fi and 5G, AMRs stay connected across large warehouse areas.
- Rugged Reliability: Fanless, ventless, and resistant to shock and vibration – designed for 24/7 uptime in active environments.



BOXER-6647-MTH is a Fanless Compact Embedded Computer with Intel® Core™ Ultra 7/5 Processors. Intel® Core™ Ultra 5/7 Processor.

CHECK THE DETAILS

RESULTS

Since deploying the BOXER-6647-MTH, LogiPort has seen measurable improvements in:

- ✓ **Processing Speed:** AI-powered navigation and load distribution tasks are now handled locally with minimal delay.
- ✓ **System Uptime:** Dust resistance and passive thermal management have reduced hardware failure and maintenance frequency.
- ✓ **Operational Efficiency:** Easy-to-swap storage trays enabled quick data rotation and system expansion.
- ✓ **Deployment Flexibility:** The wide power input and temperature range make the BOXER-6647-MTH suitable for various robot models and warehouse layouts.



CLIENT FEEDBACK

“The BOXER-6647-MTH has been a game-changer for our robotic systems. Its edge AI capability and rugged, compact design let us scale smarter and faster. The quick-access storage and wide I/O support have made our maintenance teams’ jobs much easier. It fits our automation strategy perfectly.”

DEAN MCLAREN, CTO AT LOGIPORT AUTOMATION

THANK YOU!

Inspired by LogiPort Automation's success story?
Get in touch with us to start your journey toward
outstanding results.



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