

# Edge AI for AGV & AMR

## Powering Autonomous Mobility in Real Time



### The Brain of Your Robots

- **Real-Time Perception & Decision-Making**  
Fuses LiDAR and vision AI to enable instant collision avoidance and autonomous response.
- **Adaptive Path Planning**  
Dynamically recalculates routes in real time to navigate around obstacles and changing conditions.
- **Continuous Learning Intelligence**  
Improves system performance over time through data-driven learning and environmental adaptation.

### Key Applications

- **Autonomous Navigation**  
Delivers precise positioning and smooth mobility across structured and complex environments.
- **Warehouse & Logistics Automation**  
Streamlines material handling to boost efficiency and enhance operational safety.
- **Dynamic Environment Adaptation**  
Enables autonomous decision-making in rapidly changing layouts and unpredictable conditions.

## Featured Edge AI Platforms



### Edge AI Rugged Computer **IBOX-601-G2**



- NVIDIA® Jetson Orin™ NX SoM with 1024 CUDA Cores
- 4 x GMSL Cameras Support
- 2 x Ethernet with M12 Connectors
- 1 x CAN FD for Vehicle Connection
- 9-60VDC Input with Built-in Smart Power Management
- -25°C ~ 70°C Operating with Fanless Design
- Watchdog for System Monitoring



### Edge AI Rugged Computer **ABOX-5220(P)(G)**



- Discrete NVIDIA RTX™ Embedded GPU Options for AI Acceleration
- 2 x TSN Ready 2.5GbE Controller for Time-Sensitive Network
- 8 x GbE with Optional PoE Support for Easy Connection with IP Camera
- 8 x DI (5-60VDC), 2 x ADC (0-60VDC), and 4 x DO (5V, 100mA)
- Certified with CE, FCC, and E-Mark
- Compliant with EN 50155, EN 45545-2 R25 Standards

# Industrial Automation Solutions

## Powering Real-Time Intelligence for Smart Manufacturing



### Smart & Resilient Factories

- **Real-time Visibility**  
Gain instant insight with vision AI to enable faster, data-driven decisions.
- **Predictive Maintenance**  
Minimize downtime and ensure consistent output with AI-powered analytics.
- **Secure & Resilient by Design**  
Built to IEC 62443-4-1 standards for end-to-end industrial cybersecurity.

### Key Applications

- **Machine Vision & Inspection**  
High-speed detection and precision inspection for enhanced quality control.
- **Automated Material Handling**  
Optimize workflows with intelligent sensing and robotic coordination.
- **IIoT Gateway**  
Seamlessly connect machines, sensors, and control systems for unified operations.

## Featured Edge AI Platforms



### Rugged Industrial Computer **SBOX-2622**



- 11th Generation Intel® Core™ i7 Processors (i7-1185G7E)
- Triple Display Output (2x HDMI® / DVI-D)
- Wireless Support 5G/LTE, Wi-Fi / Bluetooth (by optional module)
- Wide Range Operating Temperature -30 ~ 60°C
- 4 x RS-232/422/485
- 4 x GPI / 4 x GPO
- 9-36VDC Power Input



### Rugged Industrial Computer **VBOX-3132 Series**



- Industrial Grade Amston Lake Processor and Ethernet Controller
- Intel® Twin Lake Processor SKU Available
- 1 x 2.5GbE, 4 x PoE Ports for IoT Devices Connectivity
- 1 x Built-in CAN FD for Vehicle Device Communication
- Dual NVMe SSD Support for NVR Applications
- Built-in Watchdog and Smart Power Management for System Health Monitoring
- Supports DIN-rail and Wall-mount Installation