

Purpose-Built Ruggedized AMR Controller with GMSL Interface



Axiomtek ROBOX500



AMR Controller Featuring 13th Gen Intel® Core™ i7 Embedded CPU with GMSL Interface, Supporting ROS2-Based Reference Design

ROBOX500 is an AI-ready AMR controller engineered for demanding autonomous applications. Powered by 13th Gen Intel® Core™ i7 embedded CPU, it delivers high-performance computing for real-time robotics workloads. Designed for rugged environments, ROBOX500 features lockable M12 connectors for USB and Ethernet, ensuring secure and reliable data transmission. It supports 4 or 8 GMSL interfaces, enabling seamless integration with 3D stereo vision cameras for advanced perception. With a wide operating temperature range and flexible power input, it's built for deployment in diverse industrial and outdoor settings. ROBOX500 comes pre-integrated with a fully tested ROS2 Software Builder Pack and reference design, dramatically reducing development time and accelerating deployment. Ideal for autonomous mobile robots (AMRs) in material handling, agriculture, and drive-by-wire systems, ROBOX500 combines durability, flexibility, and intelligence in one compact solution.

***Support with ROS2
AMR Software
Builder Pack and
Reference Design***

Intel Products and Technologies

Accelerating AI and Analytics at the Edge



Intel® Core™
Processors



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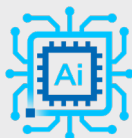
Intel® oneAPI
Toolkit



OpenVINO™
Toolkit

Key Features

Empowered by Intel.



AI-Ready
Performance



3D Stereo
Vision Camera

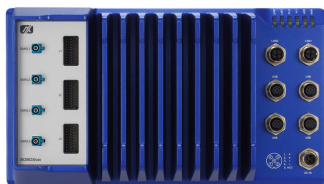


Lockable M12
Connection



Wide
Temperature
and Power
Input Range

Axiomtek ROBOX500



Product Specifications

CPU	13th Gen Intel® Core™ i7 CPU
Graphics	Embedded Intel® Iris® X ^e Graphics
Memory	2 x DDR4 SO-DIMM slot, up to 64GB
Storage	1 x M.2 Key M 2280 for NVMe
Wireless Network	Expandable with LTE/GNSS M.2 Key B 3052 and WiFi/Bluetooth M.2 Key E 2230 Card
LAN	2x M12 Ethernet and 1x RJ45 Ethernet Port
Operating Temp.	--40°C to +70°C
Dimension (W x D x H)	289 mm x 106.5 mm x 161.7 mm
Weight	3.87 kg
OS	Linux Ubuntu 20.04 LTS

Learn More

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