Vehicle Control
AB-MC-IB-SRC2000

ATOMBOTIX

Integrated Localization & Navigation

3D/2D obstacle avoidance;Rack/Code/Pallet recognition algorithm; Overall R&D Cost reduction & Fast development.

Turnkey Software Stack Compatibility

Compatible with main stream copmponent supply chain; Minimum efforts required to design prototype, fast go to market.

Multi-Kinematic Support

Handles differential, single steering wheel, mecanum, dual-steering wheel and more drive types; supports multiple mobile robot formfactor.

Modular & Scalable

Can be reused across robot variants; help OEMs scale product lines without reinventing hardware.

Rich Interfaces

Supports DI/DO, USB 3.0/USB 2.0, Gigabit Ethernet ports, CAN, RS485, Audio etc; multiple ports for multiple sensors, actuators, and external systems.

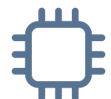### Robust Fusion Localization & Navigation

Supports 2D & 3D SLAM, QR, Reflector, Natural Feature Localization & Navigation.

Model	AB-MC-IB-SRC880
Positioning Accuracy	±5 mm / ±1°
Navigation Methods	2D/3D SLAM, QR code, Laser reflector, NFL
Supported Motion Models	Multiple: differential, mecanum, dual-steering, Mecanum Wheels.
Max Travel Speed	≤2 m/s
Dimensions (L×W×H)	225 × 128 × 84 mm
Net Weight	1.41 kg

DO / DI Interfaces	2 DO (400 mA) / 11 DI (NPN)
Power DO	8 × 24 V / 2 A (total ≤5 A)
CAN / RS485 Interfaces	2 CAN / 3 RS485
Ethernet Ports	6 Gigabit + 1 Wi-Fi expansion
Wi-Fi	Dual-band 2.4G / 5G 802.11ac 1T1X
USB Ports	4 × USB 3.0
Audio In / Out	1 in / 1 out
E-stop Input / Output	1 in / 2 out
Battery Switch Output	2 channels
Power Consumption	48 W (excluding DO output current)
Operating Voltage	24 V
IP Ratings	IP42
Operating Temperature	0°C – 50°C
Map Area (single map)	≤400,000 m²
Certification	CE-EMC, CE-LVD
Advanced Function Support	3D obstacle avoidance, QR code recognition, Rack recognition, Pallet recognition.