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Qianxing Automatic Navigation Driving System

Product Description

A highly integrated automatic navigation system for intelligent equipment upgrades

The Qianxing Automatic Navigation Driving System integrates navigation, autonomous driving, obstacle avoidance, and IoT capabilities. It provides a highly integrated navigation control solution for agricultural equipment and multi-industry intelligent devices. The system supports the addition of obstacle avoidance radar, real-time image feedback, and other functions, helping equipment achieve more precise positioning, more stable path control, and highly efficient intelligent upgrades.

For unmanned work platforms, this system is not merely a “can navigate” functional module; it’s the core foundational system connecting perception, control, dispatching, and management capabilities. It is the key support driving the development of equipment automation and unmanned operation.



Application Scenarios:

Agricultural equipment upgrades, smart agricultural machinery modification, autonomous operation equipment, industrial and special equipment navigation control

Product Features

- ✓ 120 L / 280 L dual configurations, covering different operational intensities.
- ✓ Adaptable to intelligent equipment in agriculture and multiple industries
- ✓ Supports equipment automation and unmanned upgrade
- ✓ Connects perception, control, and platform capabilities
- ✓ Improves path planning control accuracy (± 2.5 cm) and operational stability

Product Parameters

Project Name		Unit	Specification
Physical Dimensions & Electrical Characteristics	Dimensions	mm	200*150*80
	Weight	g	1300
	Input Voltage	V	12
	Power Consumption	W	<5
IMU Performance Specifications	Gyroscope Type	/	MEMS
	Gyroscope Range	°/s	± 500
	Gyro Bias Stability	°/h	2.5
	Accel Range	g	± 8
	Accel Bias	mg	1
Environmental Specifications	Operating Temperature	°C	-10 - + 60
	Storage Temperature	°C	-50 - + 80
	Humidity	%	95non-condensing
	Vibration	/	MIL-STD-810G (40g)
	Ingress Protection	/	IP65
GNSS Specifications	Satellite System	/	BDS: B1、B2
	GNSS Data Update Rate	Hz	5、10
	Heading Accuracy	°/m	0.2
	Integrated Nav Update	Hz	100
Communication Interface	4G, BLE, Ethernet, CAN, RS-485		

Application Scenarios



spraying operation



inspection operation



mowing operation