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TOKNAV



Precision Agriculture

TAG66

Electric Steering Wheel Autonomous Driving System

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Electric Steering Wheel Autonomous Driving System

TAG66 is an electric steering wheel autonomous driving system. It obtains centimeter-level vehicle positioning through BeiDou high-precision positioning and adjusts the vehicle's direction through an advanced DC servo motor solution. This autonomous steering system uses an integrated controller that combines a 4G module, IMU sensor, UHF radio, and BeiDou positioning module to achieve high-precision autonomous driving. It is suitable for agricultural activities such as sowing, harvesting, spraying, mulching, plowing, and ridge making. It can effectively improve work efficiency and yield while saving fuel, seed, and labor costs.

CHARACTERISTIC

Integrated Controller Design

This autonomous steering system uses an integrated controller that combines a 4G, IMU sensor, UHF radio, and BeiDou positioning modules, making it easy to install and transfer between vehicles. There is no need to install additional wheel angle sensors, making installation even easier.

High Precision

The system provides industry-standard RTK precision, combining BeiDou positioning with INS terrain compensation to ensure a pass precision of 2.5cm even in difficult agricultural terrains. This level of precision and accuracy is valuable for various agricultural activities such as plowing, sowing, and harvesting. By eliminating overlaps and skips, it can increase yield while saving fuel, seeds, and time.

Excellent Performance

The system easily maintains a precision of ±2.5cm within a speed range of 0.15 to 25 kilometers per hour. With high-precision algorithms, it is very suitable for sowing, planting, spraying, plowing, and other ground operations.

All-in-One Features

Compatible with various operating modes, including AB line, A+ line, custom curves, and angle harrowing. It supports work area statistics, work trajectory recording, data upload and download, and shared operation modes among multiple vehicles.

Easy to Use

With the convenient installation, users can activate common functions in just a few steps, allowing them to get started quickly and learn on the go.

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Auto-Steering System



GNSS Receiver



Camera



High-Precision Display and Control Terminal



System composition



Intelligent Display Screen



Electric steering wheel

Supports receiving external RTK corrections via UHF radio.

Supports wheel angle sensor mode required for specific farm operations.

Supports secondary development for tighter integration of components.

SPECIFICATION

RECEIVER

GPS	L1, L2, L5
GLONASS	L1, L2
GALILEO	E1, E5a, E5b
BDS	B1, B2, B3
Accuracy (RTK)	Horizontal: ±8mm + 1ppm RMS Vertical: ±15mm + 1ppm RMS
Working Temperature	-20°C ~+70°C
Storage Temperature	-40°C ~+80°C
Size	159*56 mm
Network	2G/3G/4G
Dust and Waterproof	IP69K

VEHICLE MOUNTED COMPUTER

Display Screen	10.1-inch, Support 5-point capacitive touth
Brightness	750cd/m2
Resolution	1024*600px
I/O	RS232*2 RS485*1 CAN*1/2
Communication	4G WiFi 2.4G BT 4.2, BLE USB 2.0*1
Operating Temperature	-30°C ~ +70°C
Storage Temperature	-40°C ~ +85°C
Protection Level	IP65
Work Humidity	Humidity 95%, non-condensing
Vibration standard (Operational)	MIL-STD-810
Impact standard (Operational)	ISO16750
Power	5-36V DC Input ACC, State detection for ignition

AUTO-STEERING SYSTEM

Rated Torque	7.5 N·m
Max RPM	180 RPM
Rated Current	15A
I/O	1 × CAN
Power	(9-32) VDC
Motor Dimensions	165mm × 80.5mm
Steering Wheel Diameter	D: 410mm
Operating Temperature	-20°C ~ +70°C
Storage Temperature	-40°C ~ +85°C
Dust & Waterproof Rating	IP65

CAMERA

Power Supply	DC12V ±5%
Viewing Angle	120°
Resolution	1280(H) × 720(V)
Dust & Waterproof Rating	IP65
Operating Temperature	-20°C ~ +70°C
Storage Temperature	-40°C ~ +85°C

ACCESSORIES

Receiver	1 Unit
Tablet	1 Unit
Steering Wheel	1 PCS
Motor and Driver	1 PCS
Main Cable	1 PCS
Tablet Power Cable	1 PCS
Screw Accessories Pack	1 PCS
Mount	1 PCS
Camera (Optional)	1 PCS

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Manufacturers may update parameters at any time, please refer to the latest product information.

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