



RN-1

AUTO-STEERING SYSTEM

The RN-1 Auto Steering System integrates GNSS technology with automatic control technology to ensure an operational accuracy of 2.5 cm, even in complex terrain conditions. It is compatible with a wide range of agricultural machinery and multifunctional farm implements. By using this system, you can minimize missed seeding and overlapping operations, thereby reducing input costs while improving work efficiency and quality. The RN-1 Auto Steering System offers modular precision agriculture solutions, covering everything from basic steering guidance to advanced ISOBUS implement control, catering to your diverse needs.

Universal Compatibility

The system can be applied to multiple types of agricultural machinery, including tractors, transplanters, sprayers, and harvesters, to enhance overall farm operational efficiency.

High Accuracy

Maintain a 2.5 cm accuracy to meet multiple farm operational demands, including working on sloping terrain, executing low-speed tasks, and performing high-speed operations.

ISOBUS Compatibility

The system supports ISOBUS VT, TC, and AUX functions.

Simplified Installation: No Hydraulic Modification Required

The system can be installed on or removed from your agricultural machinery in as little as 30 minutes without the need for any hydraulic circuit modifications.

Comprehensive Task Modes

The RN-1 Auto Steering System offers guidance lines and tramlines to guide your tractor on straight, curved, pivot, or mixed routes across various terrains.

Flexible Accuracy Solutions

Utilizing multi-source satellite signals from RTK, PPP, and SBAS, the RN-1 Auto Steering System delivers positioning accuracy ranging from decimeters down to 2.5cm.

Product Specification

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Control Terminal

Size	275 mm × 180 mm × 54 mm
Basic configuration	10.1-inch capacitive touch screen, 4G RAM, 8G ROM
External interface	SIM card slot×1, Type-C port×2
Power supply	9 V – 36 V
Relative humidity	0% – 95%, 40°C (non-condensing)
Wi-Fi	2.4 GHz frequency band,
Frequency range	2412 MHz – 2484MHz
Output power	2.4 GHz 11n 14±2 dBm
Operating temperature	-20°C to 70°C
Storage temperature	-40°C to 85°C
IP rating	IP65

GNSS Receiver

Size	177 mm × 170 mm × 63 mm
External interface	TNC dual antenna extension ×1, Type-C debug port ×1
Frequency band	<ul style="list-style-type: none">■ GPS L1/L2;■ GLONASS L1/L2;■ BDS B1I/B2I;■ Galileo E1/E5b
Operating voltage	9 V – 36 V
Operating current	< 300 mA
IMU accelerometer accuracy	0.5 mg
IMU gyroscope accuracy	0.1°/s
Roll/pitch	0.2°
Operating temperature	-20°C to 70°C
Storage temperature	-40°C to 85°C
IP rating	IP66

Radio Antenna

Frequency range	410 MHz – 470 MHz
Voltage standing wave ratio	≤2.0
Gain	1±0.5 dBi
Impedance	50 Ω
Polarization	vertical
Size	ø82 mm×490 mm
Operating temperature	-40°C to 70°C

Angle Sensor

Supply voltage	5 V
Output frequency	max. 200 Hz
Resolution	< 0.1°
Operating temperature	-20°C to 85°C
IP rating	IP67

Electric Steering Wheel

Diameter	380 mm
Supply voltage	12 V or 24 V
IP rating	IP65