CHCNAV

NX510 Pro

INTEGRATED AUTOMATED STEERING SYSTEM

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PRECISION AGRICULTURE

HIGH ACCURACY HANDS-FREE AUTOMATED STEERING

The NX510 Pro is an automated steering system, that easily retrofits many types of new and old farm tractors and other vehicles with a compact, up-to-date and all-in-one solution at a price every farm can afford. It provides significant productivity gains, works in all visibility conditions and reduces operator fatigue.

The NX510 Pro uses the latest generation integrated guidance controller, which is easier to install to avoid wasting precious time in the field. In addition, it can be easily transferred from one tractor to another, offering unmatched flexibility. The PA-3 guidance controller featuring full GNSS constellations offers increased accuracy for optimal navigation reliability.

The combined GNSS+INS terrain compensation technology ensures hands-free driving accuracy to within a centimeter and provides superior performance in ditching, planting and harvesting applications.

2.5 CM PASS-TO-PASS ACCURACY

Absolute accuracy in challenging environments and difficult terrains.

The NX510 Pro's advanced guidance controller, is powered with multiple correction sources and five satellite constellations: GPS, GLONASS, Galileo, Beidou and QZSS. Its integrated 4G modem connects seamlessly to any industry-standard DGPS and RTK corrections; its L-band capability enables the system to operate reliably with RTX® satellite corrections. In addition, the roll and yaw terrain compensation technology maintains high accuracy, even in challenging environments and terrain.

FULLY INTEGRATED STEERING CONTROLLER

Simplify your operation and increase productivity.

The NX510 Pro is an automated steering system that can be fully installed in less than 40 minutes on most farming vehicles, significantly eliminating costly downtime. The new auto steer features high connectivity (multiple CAN ports, a serial port, Bluetooth 4.1 and a 4G modem) as well as ISOBUS compatibility with all major equipment brands, addressing the most demanding farming applications and enhancing operation in the field.

RUGGED DESIGN AND PROVEN RELIABILITY

Extended durability in farming environments.

The NX510 Pro's industrial design incorporates dust and waterproof components (IP65 rating), perfectly suited for use in the agricultural environment. In addition, the durable, high-torque steering wheel ensures fast and reliable entry on lines.

FAST, EASY-TO-USE AND RUGGED DISPLAY

Intuitive AgNav software to control all operations at your fingertips.

AgNav multilingual software, operating on a 10.1-inch industrial display, supports multiple guidelines patterns, including AB line, A+ line, circle line, irregular curve and headland turn, to handle all common farming operations. The intuitive AgNav software enhances the user experience in every way to complete field operations with high speed and accuracy.

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INTEGRATED
AUTOSTEERING
SYSTEM

Console

Rugged to adapt to a harsh working environment.

Angle Sensor

Non-contact design to simplify installation.

Electric Wheel

High rotating speed achieves fast entry in line.

AgNav software

The user-friendly interface makes operation faster.

SPECIFICATIONS

Positioning Accuracy

Real time kinematics (RTK)	Horizontal: 8 mm + 1 ppm RMS Vertical: 15 mm + 1 ppm RMS Initialisation time: < 10 s Initialisation reliability: > 99.9%
Velocity accuracy	Horizontal: 0.007 m/s RMS Vertical: 0.020 m/s RMS

Performance

Linear autopilot deviation	≤ ±2.5 cm
Curve autopilot deviation	≤ ±10 cm
Straight line spacing deviation	≤ ±2.5 cm

Physical

External power	9 V DC to 36 V DC
Environment	Operating: -20°C ~ +75°C Storage: -40°C ~ +85°C

Electrical Steering Wheel

Power input	9 V DC to 36 V DC
Torque	10 N·m
Wheel diameter	410 mm
Motor height	87.5 mm

Display

Display	10.1'' touch screen, 281 mm x 181 mm x 42 mm Android 6.01 Dust and Waterproof: IP65

Rear Camera

Pixel	658 x 462 pixels
Camera angle of view	120°

Receiver

Size	219 mm x 205 mm x 60 mm
Weight	< 2 kg
Power	9 V DC to 36 V DC
Dust and Waterproof	IP67
Constellations	GPS/BDS/Galileo/GLONASS/SBAS/QZSS

Communication and Data

Bluetooth	v 4.1
Serial port	RS232 x 2
CAN ports	2
NMEA Output	1 Hz ~ 10 Hz
Correction Formats	CMR, RTCM2.1, RTCM2.2, RTCM2.3, RTCM3.0, RTCM3.1, RTCM3.2
4G Network modem	Integrated in receiver and in display
UHF module	None. Support external radio
Output interface	3 x LEDs (power, satellite, RTK correction) 1 × HUF antenna connector

* Specifications are subject to change without notice.
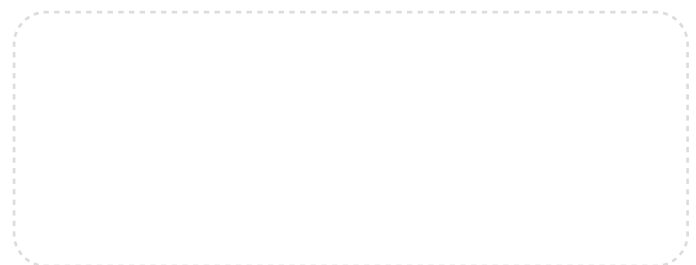
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