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NX510 Pro
ADVANCED AUTOMATED STEERING SYSTEM

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PRECISION AGRICULTURE

HIGH ACCURACY GNSS RTK + RTX™ 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 guidance controller with full GNSS constellations and RTX™ compatibility provides increased accuracy for optimal navigation reliability, even in locations where no RTK GNSS networks or UHF base stations are available.

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

MULTI-CONSTELLATION TRACKING+L-BAND

Compatible with GNSS RTK and RTX™ correction signals.

The NX510 Pro's advanced guidance controller is powered with multiple correction sources and five satellite constellations: GPS, GLONASS, Galileo, Beidou and QZSS. It's 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 terrain compensation technology maintains 2.5 cm pass-to-pass 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 a short time on most farming vehicles, significantly eliminating costly downtime.This auto steering system features high connectivity (multiple CAN ports, serial ports, WiFi/ Bluetooth and a 4G modem) as well as ISOBUS compatibility that allows for greater flexibility in automating your farming operations.

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.

RUGGED DESIGN AND PROVEN RELIABILITY

Extended durability in farming environments.

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

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ADVANCED AUTOSTEERING SYSTEM

Console

Rugged to adapt to a harsh working environment.

Trimble RTX™ service

Operate reliably with RTX® satellite corrections.

Motor Drive

High rotating speed achieves fast line acquisition.

AgNav software

The user-friendly interface makes operation faster.

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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

Pass-to-pass accuracy	≤ ±2.5 cm

Physical

External power	9 V DC to 36 V DC
Environment	Operating: -20°C ~ +70°C Storage: -40°C ~ +85°C

Electric Steering Wheel

Power input	9 V DC to 36 V DC
Torque	7.5 N·m
Wheel diameter	410 mm
Motor height	80.5 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	1280 x 720 pixels
Camera angle of view	120°

Receiver

Size	220 mm x 205 mm x 60 mm
Weight	< 2 kg
Power	9 V DC to 36 V DC
Dust and waterproof	IP67

Constellations

GPS	L1 C/A, L2E, L2C, L5
BDS	B1, B2, B3
Galileo	E1, E5a, E5b, E5AltBOC, E6
GLONASS	L1 C/A, L2 C/A, L3 CDMA
SBAS	L1 C/A, L5
QZSS	L1 C/A, L1 SAIF, L2C, L5, LEX
L-BAND	RTX

Communication and Data

WiFi/Bluetooth	Yes
Serial port	RS232 x 2
CAN ports	2
NMEA output	1/2/5/10 Hz
Correction formats	CMR, CMR+, RTCM2.x, RTCM3.x
4G Network modem	Integrated in receiver and in display
UHF module	None. External radio supported
Output interface	3 x LEDs (power, satellite, RTK correction) 1 × UHF antenna connector

* Specifications are subject to change without notice.

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