

CHCNAV

NX510 SE

INTEGRATED AUTOMATED
STEERING SYSTEM



PRECISION
AGRICULTURE

HIGH ACCURACY HANDS-FREE AUTOMATED STEERING

The NX510 SE 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 SE uses the latest generation integrated guidance controller, which is easier to install to avoid wasting precious time in the field. Its enhanced built-in connectivity modules include a 4G modem and an additional UHF radio modem to allow you to work with your favorite RTK correction sources from local RTK networks or GNSS RTK base stations. In addition, it can be easily transferred from one tractor to another, offering unmatched flexibility. The 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 sub-inch 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 SE is an advanced guidance system powered by multiple correction sources and five satellite constellations: GPS, GLONASS, Galileo, Beidou and QZSS. Its built-in 4G and UHF modem seamlessly connect to all industry standard DGPS and RTK corrections to achieve centimeter accuracy steering. In addition, terrain compensation technology maintains high accuracy, even in challenging environments and terrain.

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.

ENHANCED CONNECTIVITY STEERING CONTROLLER

Work with your favorite RTK correction via 4G GNSS networks or UHF base stations.

The NX510 SE is an automated steering system that can be fully installed in a short time on most farming vehicles, significantly eliminating costly downtime. The auto-steering system features enhanced built-in connectivity, including multiple CAN ports, serial ports, WiFi/Bluetooth, a 4G modem and even its on-board UHF radio modem. ISOBUS compatibility allows for greater flexibility in automating your farming operations.

RUGGED DESIGN AND PROVEN RELIABILITY

Extended durability in farming environments.

The NX510 SE 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 electric steering wheel ensures fast and reliable line acquisition.



INTEGRATED AUTOSTEERING SYSTEM



Console

Rugged to adapt to a harsh working environment.



H-PPP

Remarkable performance in remote area without network signals.



Motor Drive

High rotating speed achieves fast line acquisition.



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: < 5 s Initialisation reliability: > 99.9%
Velocity accuracy	0.03 m/s RMS

Performance

Pass-to-pass accuracy	≤ ±2.5 cm
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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
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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/L2/L5
BDS	B1I/B2I/B3I/B1C/B2a/B2b
Galileo	E1/E5a/E5b/E6
GLONASS	L1/L2
SBAS	L1
QZSS	L1/L2/L5/L6

Communication and Data

WiFi/Bluetooth	Yes
Serial port	RS232 x 2
CAN ports	2
NMEA output	1/2/5/10 Hz
Correction formats	RTCM 3.0/3.1/3.2/3.3
4G Network modem	Integrated in receiver and display
UHF module	Frequency: 410-470 MHz Protocol: TT450S/Transparent/CHC/ CHCAG/SATEL 3AS
Output interface	3 x LEDs (power, satellite, RTK correction) 1 x UHF antenna connector

* Specifications are subject to change without notice.

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