# CHCNAV

# NX612

**Automated Steering System** 



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Precision Agriculture

# GLOBAL COVERAGE INTEGRATED DESIGN ENHANCED USABILITY

The NX612 Automated Steering System ensures seamless connectivity to GNSS RTK networks and CHCNAV satellite-based correction services. Leveraging SkyTrix technology, it delivers ±2.5 cm accuracy even in remote areas without GNSS RTK network coverage, making it ideal for precision farming applications anywhere. The system features a compact drive wheel motor, saving cab space and enhancing operator comfort. Its industrial-grade 12-inch HD display, complete with larger icons, 3D views, and a customizable interface, offers excellent usability, making work easier and more efficient.

#### COMPREHENSIVE GNSS RTK MODES

The NX612 Automated Steering System supports multiple GNSS modes, ensuring accurate positioning under varying operating conditions. Compatible with SPP, DGPS, RTK, E-PPP, H-PPP (Galileo E6-HAS), and SkyTrix, it offers exceptional flexibility. Each mode enhances precision, delivering up to ±2.5 cm accuracy for all agricultural tasks, even in challenging environments or areas with limited network connectivity. Its multi-mode capability allows the NX612 to adapt seamlessly to regional GNSS infrastructure and field conditions, ensuring optimal performance in any location.

### VERSATILE GUIDELINE PATTERNS FOR ANY TERRAIN

The NX612 supports multiple guidance modes to accommodate different operating scenarios and field layouts. These include AB line, A+ line, curve, circular curve, irregular rake line, 90-degree line, boxed line, all-path line and path planning line. The NX612 provides reliable navigation even in complex or irregular field shapes, giving farmers the flexibility they need to effectively manage diverse agricultural landscapes.

# EXCEPTIONAL PERFORMANCE AT ALL SPEEDS

Delivering superior accuracy across the entire speed range, from 0.1 to 30 km/h, the NX612 consistently maintains ±2.5 cm precision for any task, regardless of speed. The NX612 is ideal for a wide range of farming operations, including seeding, spraying, tilling, and land preparation, enabling precise crop management and the efficient use of resources.

### BROAD COMPATIBILITY ACROSS VEHICLE TYPES

Designed for compatibility with a variety of agricultural vehicles, the NX612 integrates seamlessly with front-wheel steering, rearwheel steering, articulated vehicles, tracked machinery, rice transplanters, and self-propelled sprayers. Regardless of vehicle type or steering configuration, farmers can install high-precision automated steering across their entire fleet to ensure efficient operations.

## USER-FRIENDLY INTERFACE FOR EASY OPERATION

The NX612 features an intuitive interface designed for efficient setup with minimal steps. Its streamlined design reduces the learning time, making it easy for operators with limited training to use effectively. Clear icons, straightforward navigation, and a customizable layout provide access to key functions and enhance the user experience.

















**ISOBUS VT/TC** 

**U-turnX** 

**Cloud Service** 

Implement Guidance

**Panoramic View** 

SkyTrix

#### **SPECIFICATIONS**

	Tablet
Screen Size	12.1 inches
Resolution	1280 × 800 pixels
Brightness	750 nits
Communications	WiFi 2.4G: 2.400~2.4835 GHz WiFi 5G: 5.150~5.850 GHz Bluetooth V4.2
Weight	1.5kg
Cellular	LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/ B13/B18/B19/B20/B25/B26/B28 LTE-TDD: B38/B39/B40/B41 UMTS: B1/B2/B4/B5/B6/B8/B19 GSM: B2/B3/B5/B8
Dimensions (W × H × D)	297.1 × 199.7 × 41 mm
GNSS	GLONASS L1, L2
Operating System	Android 11
Power	9–36 V DC
Working Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Dustproof and Waterproof	IP67
	Receiver
GNSS	BDS: B1I, B2I, B3I,B1C, B2a, B2b GPS: L1C/A, L2P(Y)/L2C, L5 GLONASS L1, L2 Galileo: E1, E5a, E5b, E6 QZSS: L1, L2, L5 L-Band
	L-Dand
GNSS Mode	SPP, DGPS, RTK, E-PPP, H-PPP, SkyTrix
GNSS Mode Accuracy (RTK)	
	SPP, DGPS, RTK, E-PPP, H-PPP, SkyTrix Horizontal: ±8 mm + 1 ppm RMS
Accuracy (RTK)	SPP, DGPS, RTK, E-PPP, H-PPP, SkyTrix Horizontal: ±8 mm + 1 ppm RMS Vertical: ±15 mm + 1 ppm RMS Horizontal: ±2.5 cm (CEP95) Vertical: ±5 cm (RMS)
Accuracy (RTK) GNSS Mode	SPP, DGPS, RTK, E-PPP, H-PPP, SkyTrix Horizontal: ±8 mm + 1 ppm RMS Vertical: ±15 mm + 1 ppm RMS Horizontal: ±2.5 cm (CEP95) Vertical: ±5 cm (RMS) Convergence: < 5 min LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/ B13/B18/B19/B20/B25/B26/B28 LTE-TDD: B38/B39/B40/B41 UMTS: B1/B2/B4/B5/B6/B8/B19
Accuracy (RTK) GNSS Mode Cellular	SPP, DGPS, RTK, E-PPP, H-PPP, SkyTrix Horizontal: ±8 mm + 1 ppm RMS Vertical: ±15 mm + 1 ppm RMS Horizontal: ±2.5 cm (CEP95) Vertical: ±5 cm (RMS) Convergence: < 5 min LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28 LTE-TDD: B38/B39/B40/B41 UMTS: B1/B2/B4/B5/B6/B8/B19 GSM: B2/B3/B5/B8 CHC, TT450, Transparent, SATEL,
Accuracy (RTK)  GNSS Mode  Cellular	SPP, DGPS, RTK, E-PPP, H-PPP, SkyTrix Horizontal: ±8 mm + 1 ppm RMS Vertical: ±15 mm + 1 ppm RMS Horizontal: ±2.5 cm (CEP95) Vertical: ±5 cm (RMS) Convergence: < 5 min LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/ B13/B18/B19/B20/B25/B26/B28 LTE-TDD: B38/B39/B40/B41 UMTS: B1/B2/B4/B5/B6/B8/B19 GSM: B2/B3/B5/B8 CHC, TT450, Transparent, SATEL, CHC-AG
Accuracy (RTK)  GNSS Mode  Cellular  Radio  Power Supply	SPP, DGPS, RTK, E-PPP, H-PPP, SkyTrix Horizontal: ±8 mm + 1 ppm RMS Vertical: ±15 mm + 1 ppm RMS Horizontal: ±2.5 cm (CEP95) Vertical: ±5 cm (RMS) Convergence: < 5 min LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28 LTE-TDD: B38/B39/B40/B41 UMTS: B1/B2/B4/B5/B6/B8/B19 GSM: B2/B3/B5/B8 CHC, TT450, Transparent, SATEL, CHC-AG (9-36)V DC
Accuracy (RTK)  GNSS Mode  Cellular  Radio  Power Supply  Dimensions (W × H × D)	SPP, DGPS, RTK, E-PPP, H-PPP, SkyTrix Horizontal: ±8 mm + 1 ppm RMS Vertical: ±15 mm + 1 ppm RMS Horizontal: ±2.5 cm (CEP95) Vertical: ±5 cm (RMS) Convergence: < 5 min LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/ B13/B18/B19/B20/B25/B26/B28 LTE-TDD: B38/B39/B40/B41 UMTS: B1/B2/B4/B5/B6/B8/B19 GSM: B2/B3/B5/B8 CHC, TT450, Transparent, SATEL, CHC-AG (9-36)V DC 208 × 191 × 73 mm

Electric Steering Wheel		
Motor Type	Torque Motor	
Rated Torque	7 N·m	
Max RPM	180 RPM	
Rated RPM	120 RPM	
Rated Current	15 A	
Peak Current	38 A	
I/O	1 × CAN / Tractor horn	
Power Supply	9–36 V DC	
Dimensions of Motor	Ø165 × 58 mm	
Weight (Motor)	≤ 3.8 kg	
Dimensions of Steer Wheel	D: 400 mm / 360 mm	
Working Temperature	-40°C to +85°C	
Storage Temperature	-40°C to +85°C	
Dustproof and Waterproof	IP65	
Camera		
Resolution	1920 × 1080 pixels	
Video Output Interface	AHD	
White Balance	Automatic	
Exposure Control	Automatic	
Field of View	150°	
Working Temperature	-20°C to +70°C	
Dustproof and Waterproof *Specifications are subject to change with	IP67 out notice.	

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