CHCNAV

X10

AUTO STEERING SYSTEM



PRECISION AGRICULTURE

CHCNAV

HIGH PRECISION LARGE-SCREEN AUTOMATED STEERING

X10 is CHCNAV electric auto-steering system for agricultural machinery automation, using the latest generation of integrated GNSS high-precision positioning module and the high definition large-screen display, with a large torque electric steering wheel as well as very sensitive IMU sensor. By combining with GNSS+INS terrain compensation technology, the system will ensure the accuracy and straightness in any field conditions, allowing 24/7 all-time operation. It effectively improves land utilization and productivity, reduces the cost of fuel, seed, chemical and operation loss during field management and harvest, by its excellent performance in ditching, planting, spraying, harvesting and so on.

HIGH PRECISION

All modes support high-precision operations with sub-inch accuracy, covring wide speed range of 0.3~20 KM/H for different farming activities.

MULTI-VEHICLE SUPPORT

Support various type of vehicles, including front wheel steering, rear wheel steering, articulated and tracked type vehicles.

SOFTWARE OPERATING EASE

Commonly used functions can be activated in just 2-3 steps, very intuitive interface can largely reduce user's learning curve.

DIVERSE GUIDELINE PATTERNS

Support 9 types of guideline (AB line, A+ line, 2 types of curve, 2 types of circular curve, irregular harrowing line, custom line, 90-degree line).

EASY INSTALLATION

Installation and calibration within just 30 minutes, the system is easy to operate and can be switched on and off with one click.

OPTIONAL FUNCTIONS

Optional feature and items would highly enhance the capacity of the system, like ISOBUS, external radio and wheel angle sensor.

ELECTRIC AUTO-STEERING SYSTEM



OPTIONAL FUNCTIONS



Small size, easy to install; Support TT450, Transparent, Huace, etc protocols

ISOBUS

High-definition interactive interface; Compatible with multiple ISOBUS implements



Non-contact angle sensor, easy to install; Improve performance in tough environments

SPECIFICATIONS

Display	
Power supply	9 V - 36 V
Screen	10.1 inches Resolution: 1024 x 600 600 nits
System	Android 6.0.1 Built-in speaker
Communications	BT4.0, BLE
Weight	1.5 kg
Size (W x H x D)	281 mm x 181 mm x 42 mm
GLONASS	L1/L2
Galileo	E1/E5a/E5b
BDS	B1/B2/B3
GPS	L1/L2/L5
Data output	NMEA-0183
Working temperature	-20°C ~ +70°C
Storage temperature	-40°C ~ +80°C
Dust and waterproof	IP65

Motor Drive	
Input voltage range	9 V - 32 V
Rated torque	7.5 N.m
Peak torque	> 18 N.m
Wheel diameter	410 mm
Motor height	87.5 mm
Dust and waterproof	IP65

IMU Sensor	
Type	IMU
Roll angle accuracy	0.1°
Pitch angle accuracy	0.1°
Acceleration output noise	0.7 mg
Raw data output frequency	100 Hz
Dust and waterproof	IP67
Working temperature	-20°C ~ +70°C
Storage temperature	-40°C ~ +80°C

Rear Camera	
Power	12 - 24 V
Angles	120°
Pixel	1280 (H) x 720 (V)
Dust and waterproof	IP67
Working temperature	-20°C ~ +70°C
Storage temperature	-40°C ~ +80°C

* Specifications are subject to change without notice.

(1) Accuracy and reliability are determined under open sky, free of multipaths, optimal GNSS geometry and atmospheric condition. Performances assume minimum of 5 satellites, follow up of recommended general GPS practices. (2) New features to be provided through future firmware upgrade.

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WWW.CHCNAV.COM | MARKETING@CHCNAV.COM

CHC Navigation Headquarter
Shanghai Huace Navigation Technology Ltd.
577 Songying Road, Qingpu,
201703 Shanghai, China
+86 21 54260273

CHC Navigation Europe
Infopark Building, Sétány 1,
1117 Budapest, Hungary
+36 20 421 6430
Europe_office@chcnav.com

CHC Navigation USA LLC
6380 S. Valley View Blvd, Suite 246,
Las Vegas, NV 89118, USA
+1 702 405 6578

CHC Navigation India
409 Trade Center, Khokhra Circle,
Maninagar East, Ahmedabad,
Gujarat, India
+91 90 99 98 08 02