

SPECIFICATIONS

Machine Guidance System

Ver.2025.07.16

Signal Tracking

GPS	L1C/A, L2C, L2P*
BDS	B1I, B2I, B3I, B2b
GLONASS	G1, G2
Galileo	E1, E5b
QZSS	L1C/A, L2C
SBAS	L1C/A

Accuracy

Horizontal Accuracy	± 3cm
Vertical Accuracy	± 3cm
Azimuth	0.15°/R
Roll or Pitch	0.3°/R
Bucket Dynamic Attitude Accuracy	0.2°

R is the length of the dual antenna baseline.

Sensor

Size	37.6 x 55 x 24mm
External Power Input	9~36V
Angle Range	±80°(Pitch) ±180°(Roll)
Dynamic Accuracy (RMS)	0.4°
Operation Temperature	-40~85°C
Waterproof and Dustproof	IP68

Tablet

Size	10.1"
System	Android 9.0
CPU	8-Core
Memory	4GB RAM 64GB ROM
Resolution Rate	1280*720
Battery	N/A
4G	Dual-SIM Dual-Standby
Datalink	Frequency Range: 410-470MHz Transmit power: 0.5W, 1W, 2W adjustable Air Baud Rate: 9600 / 19200 adjustable
Bluetooth	BT 4.2, BR/EDR+BLE
WIFI	IEEE 802.11
Working Temperature	-30°C~+75°C
Storage Temperature	-40°C~+85°C
Waterproof and Dustproof	IP67
Power Supply	DC 6V~36V



Tablet



GNSS Antenna



Sensor



RTK Base (Optional)

AUTHORIZED DISTRIBUTION PARTNER

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ComNavTech



XE300

GUIDANCE SYSTEM FOR EXCAVATOR



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XE300 GUIDANCE SYSTEM

The XE300 Guidance System is developed and manufactured by ComNav Technology Ltd. for excavators. The system employs high-precision GNSS positioning and heading technology, and inertial sensors as well. It can provide precise guidance to drivers to control the bucket for tasks, such as levelling, slope cutting, digging, etc. Efficiency and productivity can be improved by eliminating the need for manual staking. Compared with traditional operation, it can achieve centimeter-level accuracy in less time, decrease rework, significantly increasing efficiency and ensuring higher quality.



Support CORS



Support RTK Base



GNSS Tablet

- Aluminium magnesium alloy shell with IP67 dustproof and waterproof
- Sunlight readable capacitive screen
- High resolution LCD display



RTK Base (Optional)

- Portable design with up to 15km working range
- Support full-constellation multi-frequency tracking with 1590 channels



Sensor

- Biax gyroscope with great measuring range
- Wide temperature operation (-40 ~ +85°C)
- IP68 rugged design, shock-resistance



GNSS Antenna

- Full-constellation multi-frequency tracking stable signal
- Quick and convenient to install

FEARTURES

Precise Guidance



The integration of SinoGNSS K8 GNSS high precision modules allows positioning accuracy within $\pm 3\text{cm}$, heading accuracy up to 0.2° , which meets the requirements of most construction projects.

Extended Durability



The XE300 is designed to withstand the harsh job sites. Dust and waterproof components, robust design, rugged sunlight-readable touchscreen can deal with various high-intensity shock and vibration industrial environments.

Easy to Expand



The system adopts a low-coupling modular structure design and provides a standard development interface, which can realize multi-sensor and controller expansion and be easily applied to other construction machinery, opening up more infinite possibilities.

Intuitive Interface



It supports CSV (output from SurveyMaster) and standard AutoCAD DXF design files. With intuitive software and user-defined configuration, drivers can complete projects quickly and accurately, even for those with less experience.

APPLICATIONS



| LEVELING TRENCHES



| GRADING SLOPES



| TRENCH DIGGING



| HIGH-ACCURACY PILING



| UNDERWATER OPERATION



| FOUNDATION EXCAVATION