



**Product Description:**

This product has a built-in high-precision three-axis integrated fiber-optic gyro, a small quartz flexure accelerometer and a mobile mapping-grade multi-mode and multi-frequency GNSS receiver that supports the autonomous BeiDou function. Through the advanced intelligent combination navigation algorithm and Kalman filter, optimized design for GNSS obstruction and multi-path interference, it can realize high-precision heading, attitude, speed and position measurement of moving carriers.

The inertial guidance system also has a variety of sensor interfaces, which can well meet the needs of long-time, high-precision and high-reliability navigation applications in complex environments such as urban canyons, and can be used for the navigation and control of various types of unmanned systems.

**Features:**

- Fast and accurate determination of initial heading and attitude
- Support real-time heading and attitude output
- Built-in GPS, BeiDou dual-mode receiver
- Dynamic fast alignment
- INS/GNSS combination design
- Support IE post-processing
- Anti-electromagnetic interference and vibration
- Enhanced Kalman filtering algorithm

**Applications:**

- Car Navigation
- Airborne Navigation
- Shipboard Navigation
- Stabilization Control

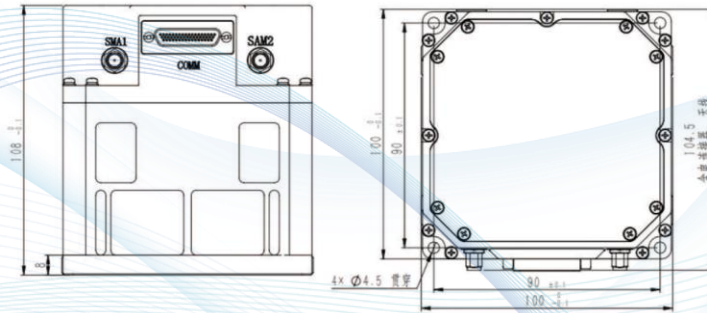
**Specification:**

Combined inertial/satellite navigation accuracy	
Attitude Accuracy	0.01° (1σ) ; Roll、 Pitch: ≤0.01° (1σ)
Position Accuracy	Point position: horizontal≤1.5m, elevation≤3m (RMS, satellite signal good) ; RTK: horizontal≤2cm+1ppm, elevation≤2cm+1ppm (RMS, Carrier phase-differential link good)
Velocity Accuracy	0.02m/s (RMS, Carrier speed less than 500m/s)
Registration Time	≤5min(Static self-searching north) ≤1min(Dual antenna assisted directional)
Heave	<5cm(heave<1m) or 5%(heave>1m)
Inertia/ODO/DVL Accuracy	0.5%×Miles traveled (depending on the accuracy of the external odometer)

## Specification:

Main Device Characteristic			
Gyroscopes	Range $\pm 500^\circ/s$	Zero bias stability	$\leq 0.02^\circ/h$ (Allan Variance)
Accelerometers	Range $\geq \pm 20g$	Zero bias stability	$\leq 30\mu g$
Physical Characteristic		Interface Characteristic	
Supply voltage	24V DC rate (12 ~ 32V DC)	Interface method	RS422/RS232/CAN/network
Electric consumption	< 14W	Storage temperature	$-55^\circ C \sim +85^\circ C$
Operating temperature	$-40^\circ C \sim +70^\circ C$	Transmission speed	115200bps (configure)
Protection level	IP65		
Physical dimension	$\leq 100mm \times 100mm \times 108mm$		
Weight	$\leq 1.4Kg$		

## External Dimension:



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