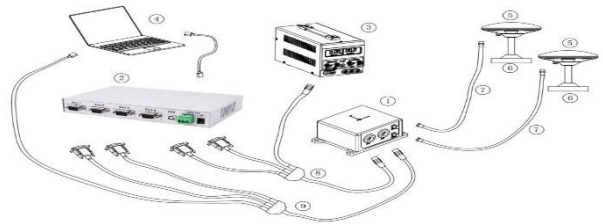


M2300

MEMS based high-performance inertial navigation system and motion reference unit

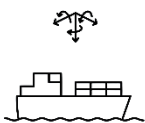
The M2300 adopts MEMS gyroscope and accelerometer chips, utilizing Micro Magic Technology ® The algorithm technology design and manufacturing can output various information such as posture, heave, and navigation for users. INS and MRU products with high precision, small size, easy installation, and high cost-effectiveness.



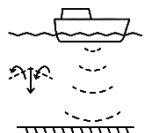
FEATURES AND BENEFITS

- Real time output of stable attitude, heave, and heading information
- Low latency
- High cost-effectiveness
- Lightweight, compact, and easy to install
- Provide static and dynamic alignment modes with and without GNSS

APPLICATIONS



Navigation and attitude control of small and medium-sized ships in the sea and unmanned equipment



Hydrological surveying: motion compensation for single echo-beam

TECHNICAL SPECIFICATIONS

System Accuracy	Product type	M2300-A	M2300-B
	Category	MEMS-INS+GNSS	MEMS-MRU
	North-seeking accuracy (RMS, 1 σ)	$\leq 3^\circ \text{sec}\phi$ (Pure inertial 1h)	N/A
	Heading accuracy (RMS, 1 σ)	$\leq 3^\circ$ (Pure inertial) $\leq 0.1^\circ$ (INS+GNSS: 2m baseline) $\leq 0.05^\circ$ (INS+GNSS: 4m baseline)	N/A
	Attitude accuracy (RMS, 1 σ)	$\leq 0.02^\circ$ (Static) $\leq 0.03^\circ$ (Dynamic)	$\leq 0.02^\circ$ (Static) $\leq 0.05^\circ$ (Dynamic)
	Heave (RMS)	$\leq 5\text{cm}$ or 5% Take the bigger value of H (H refer to Heave)	
	Angular velocity range	$\pm 400^\circ/\text{s}$	
	Acceleration range	$\pm 8g$	
Interface	Output	RS232/RS422/RS485/CAN Optional	
	Input	GNSS	N/A
	Data frequency	0 ~ 200Hz (Configurable)	
	Protocol	Support multiple protocols	
Physical Characteristics	Size	108 x 78 x 51 (mm)	70.5 x 60.5 x 33 (mm)
	Weight	460g	150g
	Voltage	9 ~ 36VDC	
	Power	$\leq 8W$	$\leq 3W$
Timing	Starting time	$\leq 3\text{min}$	
Environment	Operation temp	$-40^\circ\text{C} \sim 60^\circ\text{C}$	
	Storage temp	$-40^\circ\text{C} \sim 85^\circ\text{C}$	