

IMU910-2A

Three-axis fiber optic IMU



IMU910-2A fiber optic inertial measurement measurement is a miniaturized, highly cost-effective three-axis integrated fiber optic strapdown inertial measurement unit. The product can sense real-time three-axis attitude angle (or angular rate) and acceleration information of smart objects and construct their motion trajectories by solving them to provide accurate velocity, position, attitude and other navigation information under completely independent and non-constrained conditions of specific environment or position.

ADVANTAGES

- High precision
- Vibration resistance
- Strong environmental adaptability

APPLICATION FIELDS

- Aerial surveying and mapping, unmanned vehicle attitude control, vehicle navigation and positioning;
- UAV, heave measurement, marine engineering surveying and mapping;
- Attitude measurement of low-speed aircraft, navigation of ships and underwater vehicles, attitude reference of marine equipment;

IMU910-2A TECHNICAL PARAMETers

	Parameter		X	Y	Z
	IMU	Gyros	type	FOG	FOG
Range			±300°/s	±300°/s	±300°/s
Zero bias at full temperature			≤ 0.5°/h	≤ 0.5°/h	≤ 0.5°/h
Angular random walk			≤ 0.05°/√h	≤ 0.05°/√h	≤ 0.05°/√h
bias instability			≤ 0.02°/h	≤ 0.02°/h	≤ 0.02°/h
Bias stability (1σ)			≤ 0.05°/h	≤ 0.05°/h	≤ 0.05°/h
Zero bias repeatability (1σ)			≤ 0.06°/h	≤ 0.06°/h	≤ 0.06°/h
Scale Factor Nonlinearity			≤ 50ppm	≤ 50ppm	≤ 50ppm
bandwidth			100Hz	100Hz	100Hz
Accele-romete		type	quartz	quartz	quartz
		Range	±30g	±30g	±30g
		Zero bias at full temperature	≤ 2mg	≤ 2mg	≤ 2mg
		Angular random walk	≤ 10mm/s/√h	≤ 10mm/s/√h	≤ 10mm/s/√h
		bias instability	≤ 20ug	≤ 20ug	≤ 20ug
		Bias stability (1σ)	≤ 100ug	≤ 100ug	≤ 100ug
		Zero bias repeatability (1σ)	≤ 100ug	≤ 100ug	≤ 100ug
Scale Factor Nonlinearity	≤ 100ppm	≤ 100ppm	≤ 100ppm		
bandwidth	800Hz	800Hz	800Hz		
Environmental requirements	Operating temperature (°C)		-40 ~ +85		
	Storage temperature (°C)		-55 ~ +100		
	shell material		Aluminum		
Physical properties	Size		108x108x88 (mm)		
	Weight		≤3.5Kg		