IF3000: HIGH PERFORMANCE FOG INS+GNSS SENSOR

■ **PRODUCT DESCRIPTION**

IF3000 is consists of a three-axis integrated fiber optic gyroscope, quartz accelerometer, and a full system multi frequency satellite module that supports Beidou function. This product is equipped with excellent navigation fusion algorithms, which can continuously output stable and reliable navigation information even in the event of satellite loss of lock. After temperature compensation and calibration, the system accuracy is ensured throughout the entire temperature range. This product has rich interfaces and can be connected to sensors such as odometry and DVL. It has good scalability and can customize various statement protocols.

■ **PRODUCT MAIN SPECIFICATION**

System accuracy	Heading	≤0.05°	(RMS, single antenna dynamic alignment)
		≤0.1°	(RMS, dual antenna 2-meter baseline heading)
		≤0.3°×secφ	(RMS, pure inertia north seeking D02)
	Attitude	≤0.05°	（RMS）＆0.02°（D02）
Position accuracy	Single point positioning	≤1.2m	（INS+GNSS，RMS）
	Odometer/DVL combination	1%×D（D is the mileage, depending on the odometer accuracy）	
Velocity accuracy	0.02m/s（INS+GNSS，RMS）		
Starting time	≤5s		
Time alignment	≤1~2min（Dual antenna satellite assistance）		
Data update rate	200Hz（configurable）		
Main device indicators			
Gyroscope	Range	± 500	°/s
	Bias stability	≤ 0.5	°/h（GJB，1σ）
Accelerometer	Range	±50	g
	Bias stability	≤ 30	μg（GJB，1σ）
Physical property			
Voltage	12~36V	Power consumption	≤ 10W
Working temperature	-40℃~+60℃	IP grade	IP65
Dimension	100×79×70mm	Net weight	≤ 08kg
Vibration	Meet the vibration requirements of GJB150.16A-2009 and propeller aircraft equipment		
Shock	30g,11ms, half sine		
Interface Characteristics			
Interface type	Channel 1: RS232; Channel 4: RS422; Channel 1: PPS output		
Transmission speed	9600~921600bps (configurable)		

■ **PRODUCT APPLICATION**

－Drone
－ROV/ AUV navigation

－ROV and unmanned ship
－High precision Robotics