IF3700: HIGH PRECISION FOG INS+GNSS SENSOR

■ **PRODUCT DESCRIPTION**

IF3700 adopts a high-precision closed-loop fiber optic gyroscope with a full temperature of 0.01°/h and a 20 μg high-precision quartz accelerometer, which can achieve high-precision pure inertial orientation measurement. It has autonomous compass function and can maintain attitude and heading accuracy for a long time without external assistance. It can be used as the main navigation equipment for large unmanned aerial vehicles, unmanned ships, and unmanned submarines, and is widely used in related fields such as aviation, aerospace, and navigation.

■ **PRODUCT MAIN SPECIFICATION**

System accuracy			
Pure inertial alignment accuracy	North finding accuracy	≤0.05°×secφ	（RMS）
	Attitude accuracy	≤0.003°	（RMS）
Pure inertia retention accuracy	Heanding angle	≤0.01°	（RMS，1h）
	Attitude angle	≤0.005°	（RMS，1h）
	Position	≤1nmile/h	（CEP50%）
	Velocity	≤0.5m/s	（RMS,1h）
INS+GNSS integrated accuracy	Heading	≤0.02°	（RMS）
	Attitude	≤0.005°	（RMS）
	Position	Single point positioning: ≤1.2m（RMS） RTK:≤2cm+1ppm（RMS）	
	Velocity	≤0.02m/s	（RMS）
Inertia/ODO/DVL integrated accuracy		≤0.5%×D（D is the mileage, depending on the DVL accuracy）	
Main device indicators			
Gyroscope	Range	±300	°/s
	Bias stability	≤0.01	°/h（GJB，1σ）
Accelerometer	Range	±30	g
	Bias stability	≤20	μg（GJB，1σ）
Physical property			
Voltage	28V	Power consumption	≤35W
Working temperature	-40℃~+60℃	IP grade	IP65
Dimension	190×190×166mm	Net weight	≤7kg
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: CAN; Channel 1: Ethernet; Channel 1: USB		
Data update rate	Integrated navigation data: 1~800Hz (adjustable); GNSS data: 1-5 Hz		
Transmission speed	9600~921600bps (configurable)		

■ **PRODUCT APPLICATION**

－ Airplane
－ Ship navigation
－ ROV and unmanned ship
－ Aerospace