

FOG800S Middle grade precious Closed-loop Fiber Optic Gyroscope

Mini Size Gyro



FOG800S is one device designed with Small size; Operating at the wavelength of 1550nm, this waveband the light transmits with the lowest insertion loss. The gyro ASE light source has a high output power together with the good wavelength stability. This state-of-the-art closed loop fiber optic gyroscope (FOG) designed and developed entirely in-house. The FOG Photonics delivers superior precision and reliable performance at lower cost and smaller size than other comparable gyros, especially other FOGs.

Product features

Closed loop fiber optic gyroscope

High accuracy, low noise sensor

All "Solid State" containing no moving parts

Digital and/or Analog output Available as 1 -2-3-4 axes configuration

High resolution Low latency Lightweight package

Temperature modeled Reduced magnetic sensitivity

Provisions for extra processing capabilities

Ruggedized packaging

Great performance with harsh dynamic conditions

Applications

The FOG solutions are versatile and suitable for a wide variety of demanding applications such as:

- Navigation
- Missile and Torpedoe guidance
- Flight controls
- UUV/UAV/ Target Drones guidance and control
- Gyro compassing / target acquisition systems
- Camera/mapping
- AHRS
- Motion compensation
- EO/FUR/Radar stabilization
- Line-of-sight tracking / Precision pointing
- Smart munitions
- Gimbal control

Specifications

Parameter	Units	FOG800S
Angular Random Walk (noise)*	°/hr	0.007
Bias stability	°/hr	≤0.05(10s,1σ)
Bias Repeatability (day to day)	°/hr(1σ)	0.05
Scale factor repeatability	ppm(1σ)	≤50
Scale Factor Non-Linearity (max rate, 25°C)	ppm,(1σ)	≤50
Dynamic Range (Angular Rate)	°/sec	±800
Band width	HZ	>100
Dimension	mm	98x98x34
Weight	g	490g ± 20g
Magnetic field sensitivity	/hr/Gs	< 0.005 ° /hr/Gs
Operation temperature	°C	-40-+71
Storage temperature	°C	-55-+85
Shock	g	40g, 11 msec, sawtooth
Vibrations	g	6.3g(20-1500HZ)
Interface		RS422 Or OEM
Power supply	V	±5V
Power consumption	W	<5W
MTBF	Hours	20000
Baud Rate	Kbps	Typ 460.8kbps (User selectable 9.6 Kbps to 921.6 Kbps)
Data Rate	Hz	Typ 500Hz (User Selectable 1 to 1000Hz)

Note:

* Random Walk determined by Allan variance method

Dimension

