

## **FOG1000 High Dynamic Range Closed-loop Fiber Optic Gyroscope**

### **Mini Size Gyro**



FOG1000 is one device designed with High dynamic range up to 1000deg/sec;It can meet customer's all required applications .Also 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 FOGPhotonics 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	≤0.2(10s,1σ)
Bias Repeatability (day to day)	°/hr(1σ)	0.2
Scale factor repeatability	ppm(1σ)	≤100
Scale Factor Non-Linearity (max rate, 25°C)	ppm,(1σ)	≤100
Dynamic Range (Angular Rate)	°/sec	±1000
Band width	HZ	>100
Dimension	mm	70x70x32
Weight	g	235g ± 15g
Magnetic field sensitivity	/hr/Gs	< 0.005 ° /hr/Gs
Operation temperature	°C	-45 - +71
Storage temperature	°C	-55 - +85
Shock	g	60g, 11 msec, sawtooth
Vibrations	g	16g(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