

L2 Silicon Optical 3-Axis Gyro

Description

The L2 Silicon Optical 3-Axis Gyro is a high-performance silicon photonic product for 3-axis angular velocity detection, dedicated to high-precision 3-axis angular velocity sensing. It has a room-temperature zero bias stability of $\leq 0.2^\circ/\text{h}$, an angular velocity measurement range of $-800\sim+800^\circ/\text{s}$, an angular random walk factor of $\leq 0.02(^\circ)/\text{h}^{1/2}$ and a bandwidth of $\geq 400\text{Hz}$, with scale factor nonlinearity and repeatability both at $\leq 100\text{ppm}$. The product has a start-up time of ≤ 1 minute, an operating temperature range of $-40\sim+60^\circ\text{C}$ and a storage temperature range of $-55\sim+85^\circ\text{C}$, and supports a wide voltage power supply of $+12\sim+24\text{V}$. It has dimensions of $70\pm 0.3\times 65\pm 0.3\times 51.4\pm 1\text{mm}$ and a maximum weight of 500g, adapted to a standardized electrical interface. With high detection accuracy and strong environmental adaptability, it can stably provide highly reliable angular velocity detection data.

Feature

Under completely independent conditions without being restricted by specific environments or locations, perceive and obtain real-time three-axis angular velocity and acceleration information of moving objects.



Application

This product is mainly applicable to equipment that requires motion control, such as unmanned vehicles, unmanned aerial vehicles (UAVs), missiles, aerial surveying and mapping, navigation for

submarines and ships, marine engineering surveying and mapping, and attitude control of spacecraft, etc. Unmanned Surface Vehicle

Specifications

L2 Silicon Optical 3 Axis Gyro			
Performance parameter			unit
1. Gyroscope			
1.1	Zero bias stability at room temperature (10s, 1σ)	≤0.2	(°)/h
1.2	Zero Bias Repeatability (1σ)	≤0.2	(°)/h
1.3	Zero bias stability at room temperature (10s, 1σ)	≤0.2	(°)/h
1.4	Scale Factor Non - linearity (1σ)	≤100	ppm
1.5	Scale Factor Repeatability (1σ)	≤100	ppm
1.6	Measurement Range	-800~+800	(°) /s
1.7	Random Walk Coefficient	≤0.02	(°) /h^{1/2}
1.8	Bandwidth	≥400	Hz
2. Other Indicators			
2.1	Overall Dimensions	70±0.3×65±0.3×51.4±1	mm
2.2	Start - up Time	≤1	min
2.3	Weight	≤500	g
2.4	Operating Temperature	-40~+60	°C
2.5	Storage Temperature	-55~+85	°C
2.6	voltage	+12~+24	V
2.7	Electrical Connection Interface	J63A-242-015-261-TH	/

Mechanical Dimension

