ER-FIMU-60 Low Cost & High Precision FOG IMU (Replace LN200)

1. Introduction

ER-FIMU-60 Low Cost & High Precision FOG IMU (replace LN200) developed for tactical military systems in order to replace LN200 of Northrop Grumman (Former Litton). It consists of an all-solid triaxial fiber optic gyroscope and triaxial quartz flexibility accelerometer, body structure, data interface board and other components. It has the following advantages: fast start-up and fast response; full attitude measurement; low power consumption and miniaturization; fully sealed, non-active part and gas protection compartment, and reliable frame structure, thus featuring high reliability and long life. The sensor has low noise and small offset, and can be directly integrated with navigation computer, satellite receiver and related software to form GNSS/INS integrated navigation. It can be directly applied to inertial navigation of surface-to-air missiles, air-to-air missiles and navigation missiles. It can be widely used in space stabilization systems, mapping systems, attitude reference systems, motion compensation systems, imaging stabilization systems, flight control systems and air combat maneuvering instruments / navigation test equipment.

2. Specifications

Angular rate measuring ≤500°/s

Three-axis angular rate scale factor nonlinear ≤300ppm (1σ)

Three-axis angular rate bias Repeatability ≤0.5º/h (1σ)(room temperature)

Three-axis angular rate bias stability ≤1º/h (1σ)(full temperature)

Three axis acceleration measurement range ±50 g

Three-axis accelerometer factor scale nonlinear ≤300ppm (1σ)

Three-axis accelerometer factor scale Repeatability ≤5×10-4 g (1σ)

Overall dimensions: Φ90 *102.0 mm

Weight: 1200g ± 60g

Power supply: 28V dc (power supply accuracy ±5%, ripple less than 30mV)

Communication: RS-232 interface standard