



Applications

- Tactical Grade Applications
- Unmanned Aerial Vehicle (UAV) Guidance
- Missile Guidance
- Aeronautics and Aviation
- Robotics

Features

- Fully-Integrated Optics and Electronics
- Advanced Optics and FPGA Electronics for Higher Accuracy, Lower Noise and Greater Efficiency
- FPGA-Based Closed-Loop Design for Improved Drift Stability, Higher Linearity, and Greater Flexibility
- Bandwidth to 750 Hz
- More Economical than Competing Systems

Suitable for Demanding Applications

EMCORE's closed-loop Fiber Optic Gyroscope (FOG) technology is designed for fast, accurate navigation and gyrocompassing, and low noise line-of-sight stabilization. Our long-standing leadership in the development of highly-accurate defense and military grade fiber optic components and systems has paved the way for the development of more accurate and economical FOG components. EMCORE's FOGs are setting the new benchmark for tactical and navigational grade gyros for a wide variety of guidance, navigation and aeronautics applications.

EMCORE's EG-200 Fiber Optic Gyro features EMCORE-Hawkeye™ fully-integrated optics and electronics, and is a superior device in regards to weight and form-factor for tactical applications. It incorporates advanced, next-generation Field Programmable Gate Array (FPGA) electronics that deliver higher accuracy, lower noise, greater efficiency and reliability, combined with low cost. The integrated FPGA electronics also improve optical drift stability, environmental flexibility and linearity compared to competing technologies. The EG-200 can be calibrated internally for better thermal effect and has both digital and analog outputs to accommodate the widest variety of installation parameters.

EMCORE's EG-200 is the clear choice when selecting a precision solid-state gyroscope component for tactical grade applications.

General Specifications

Specifications	Values
Dimensions	3.2" x 3.2" x 0.8" 81.2 mm x 81.2 mm x 20.3 mm
Bias over Temp, Uncompensated	1σ 20°/hr
Bias over Temp, With Compensation	1σ <0.8°/hr
In-Run Bias @ 25 °C (Typical)	<0.1°/hr (0.05 °/hr)
ARW @ 25 °C (Typical)	0.012°/√hr (0.009°/√hr)
Scale Factor	0.027 Arc Sec/1sb
Scale Factor Non-Linearity	<50 ppm
Maximum Input Rate	300°/sec
Bandwidth @ -90° phase @ -3dB	>550 Hz >750 Hz
Power (Typical)	<5W (<3.5W)