Docket #: S06-255

Reduction of Thermal Drift in a Fiber Optic Gyroscope

An optical sensor includes an optical coupler. The optical sensor further includes a photonic bandgap fiber having a hollow core and an inner cladding generally surrounding the core. The photonic bandgap fiber is in optical communication with the optical coupler. Light signals counterpropagate through the photonic bandgap fiber and return to the optical coupler. The photonic bandgap fiber has a phase thermal constant S less than 8 parts-per-million per degree Celsius.

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Applications

- A method to reduce the thermal drift in a fiber optic gyroscope, by using an air-core fiber, andmethods to reduce the residual thermal drift by properly designing the air-core fiber."

Patents

- Published Application: 20080030741
- Published Application: 20100039649
- Issued: 7,619,743 (USA)
- Issued: 7,911,620 (USA)

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