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between two counterpropagating light waves traveling in the same fiber coil 1 3 on chip silicon electro optical modulator with ultra high extinction ratio for fiber optic distributed acoustic sensing emcore s state of the art closed loop fiber optic gyroscope fog technology achieves higher performance with lower cost size weight and power than competing units and legacy designs and now features the high performance field proven fogs acquired from kvh industries optical gyroscopes with virtually no moving parts are used in commercial jetliners booster rockets and orbiting satellites such devices are based on the sagnac effect first demonstrated by french scientist georges sagnac in 1913 a resonant fiber optic gyroscope rfog based on a broadband source can avoid the fundamental drawback of coherence detection processing while possessing the greater sensitivity afforded by the finesse of the fiber optic ring resonator optimizing the bias modulation of a fiber optic gyroscope is crucial to improving its precision in this study we propose and demonstrate the use of multiple harmonics of sinusoidal modulation

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