



**Media Contact:**

Lew Stolpner  
Director of Product Management  
Phone: 408-970-3500 ext. 312  
Email: [lew.stolpner@rio-inc.com](mailto:lew.stolpner@rio-inc.com)

**NEWS RELEASE**

**U.S. Patent Issued to Redfern Integrated Optics for Optical Phase Lock Loop System for Fiber Optic Sensing Applications**

**Santa Clara, Calif. – January 11, 2012** – Redfern Integrated Optics, a global leader in single frequency narrow linewidth lasers and laser systems, today announced that the United States Patent & Trademark Office has issued patent number 8,023,540 for its apparatus and implementation of an Optical Phase Lock Loop (OPLL) system using a pair of semiconductor external cavity lasers.

This patent describes an OPLL system architecture with tunable frequency offset based on two narrow linewidth ECLs (master and slave). The system offers long-term stable operation, and is housed in a small form-factor package. Types of applications for the OPLL system include, but are not limited to, distributed fiber optic Brillouin based sensing (BOTDA & BODTR), Coherent Raleigh (CR) based sensing, airborne coherent Doppler LIDAR, microwave photonics and heterodyne metrology.

**About RIO Inc.**

Redfern Integrated Optics, Inc. (RIO) is the leading global supplier of single frequency narrow linewidth lasers, modules, and subsystems to the clean energy, security, oil and gas, and test and measurement markets. RIO's lasers have ultra-low noise, unparalleled wavelength stability, small size, low power dissipation, Telecom grade lifetime reliability, at affordable prices. For more information, please visit [www.rio-inc.com](http://www.rio-inc.com)