



Breaking the Quantum Barriers

For Immediate Release

DARPA Awards Orbits Lightwave with a \$5.26M Contract for Development of a 1550 nm Source Laser

DARPA PHOR-FRONT program requires a low-noise, high power and frequency-stabilized laser at 1550 nm

Pasadena, Calif., May 1, 2006 – Orbits Lightwave, Inc., an innovative supplier of ultra-stable, low noise fiber lasers today announced the award of a DARPA contract for further development of its popular ETERNAL™ fiber laser. The two-phase program calls for delivery of a narrow-linewidth, low-noise, high power and frequency-stabilized laser at 1550 nm. At the end of Phase II, the laser will provide 10Hz linewidth, < -165 dB/Hz RIN, 1 Watt of fiber-coupled optical power output with 20% wall-plug efficiency. Additional requirements include small size (<500cc) and low mass (<0.5kg).

Based on a novel and patented "virtual ring" laser architecture, ETERNAL™ fiber lasers from Orbits Lightwave offer state of the art S/N and side-mode suppression, shot-noise limited RIN, narrow (<1kHz) line-width, with excellent frequency stability. The "virtual ring" design enables traveling wave operation in the linear fiber cavity and thus prevents the phenomena known as "spatial hole burning". The elimination of the spatial-hole-burning leads to higher stability, lowered noise levels and better overall efficiency.

"The industry-leading performance of our ETERNAL™ laser platform played a key role in the selection of Orbits Lightwave as a development partner for PHOR-FRONT," said Dr. Yaakov Shevy, Orbits Lightwave co-Founder and President. "ETERNAL™ technology exceeds the optical performance of larger and more costly solid-state laser designs, and offers a realistic pathway to meet the stringent frequency stability, AM and FM noise, size, mass and power consumption requirements of the PHOR-FRONT program."

About Orbits Lightwave:

Founded in 1999 and privately held, Orbits Lightwave, Inc. of Pasadena, California, designs, manufactures, and markets Fiber Lasers for sensing, LIDAR, test, and coherent communications. Orbits Lightwave ETERNAL™ products benefit the researcher and system designer alike by providing unprecedented levels of laser performance for sensing, interferometry microwave photonics and other highly sensitive coherent laser applications.

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Press Release