DFB pro 633 – Mode-hop free tuning at 633 nm

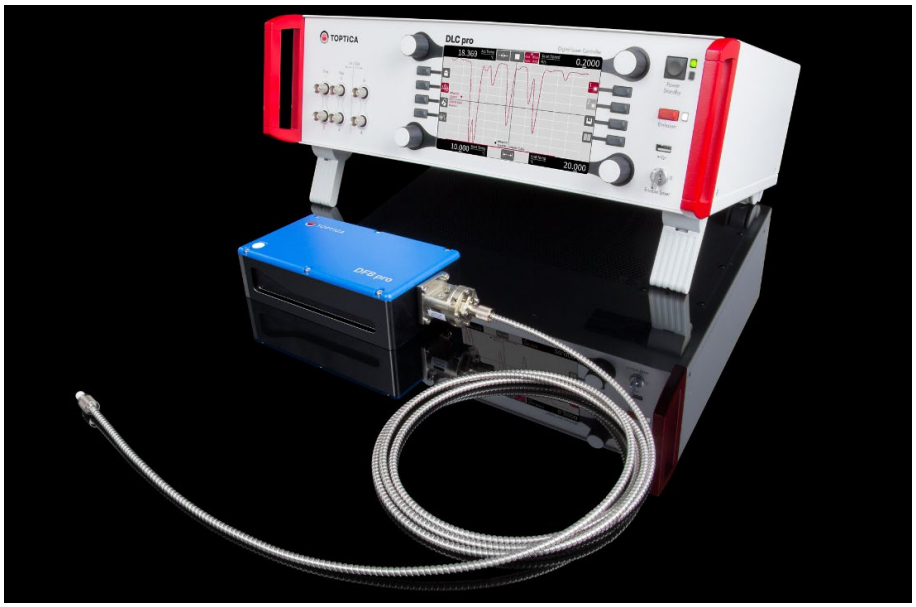
Single-frequency laser based on a DFB diode, engineered for high-precision applications like semiconductor metrology and phase-shifting interferometry.

Graefelfing, Germany | June 6, 2025

TOPTICA introduces the DFB pro 633, the newest member of our family of mode-hop-free tunable lasers for metrology.

"Our DFB pro 633 provides a mode-hop-free tuning range of 200 GHz. Driven by the DLC pro controller, it is ready to be integrated into OEM customers' tools," explains Stéphane Junique, product manager for the DFB pro laser platform at TOPTICA.

The DFB pro 633 offers a mode-hop-free tuning range of 200 GHz. The DFB pro, a single-frequency laser based on a distributed-feedback (DFB) diode, covers wavelengths from 633 nm and 760 nm up to 3500 nm and offers a mode-hop-free tuning range of up to 1400 GHz. It is well-suited for a variety of applications, including semiconductor metrology and spectroscopy.



DFB pro 633 driven by DLC pro controller – mode-hop free tuning at 633nm

Distributed feedback (DFB) lasers unite wide tunability and high output power. The frequency-selective element – a Bragg grating – is integrated into the active section of the semiconductor and ensures continuous single-frequency operation. Due to the absence of alignment-sensitive components, **DFB lasers** exhibit an exceptional stability and reliability. The lasers work under the most adverse environmental conditions – even in the Arctic or in airborne experiments.

Learn more

About TOPTICA

TOPTICA has been developing, producing, and marketing high-end lasers and laser systems for science, research, and industry for over 25 years. The portfolio includes diode lasers, ultrafast fiber lasers, terahertz systems, and optical frequency combs. Worldwide, TOPTICA has 600 employees in seven business units with a consolidated group revenue of €140 million.

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