

High Q Laser Presents a Compact All-Diode-Pumped Oscillator

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RANKWEIL, Austria -- High Q Laser has introduced a compact all-diode-pumped oscillator 'femtoTRAIN™ Ti:Sapphire' in the market. The oscillator offers femtosecond (fs) light pulses with a duration of < 100fs at a repetition rate of 73MHz and an average power of up to 400mW. It is available at fixed center wavelengths of 790, 800, 810, 850 or 870nm, respectively. As an option, the laser can also be operated at its second harmonic wavelength.

The femtoTRAIN™ Ti:Sapphire incorporates, at a footprint of (53x20)-cm (or 7.5cm height), fs-resonator and pump laser in one monolithic housing; no external pump laser is needed and the laser can be easily used for particular application. A semiconductor saturable absorber mirror (SESAM) assures passive and self-starting mode locking, offering a robust and stable system. In contrary to KL mode locking, saturable absorber mode locking leads to a very clean pulse train with a side band suppression of more than 50dB.



femtoTRAIN Ti:Sapphire

Due to its compact size and high stability, it is the ideal femtosecond laser source for nanostructuring applications like 'Two-Photon Polymerization' (2PP) or imaging methods like Two-Photon Microscopy. Additionally, the femtoTRAIN™ Ti:Sapphire is used for low noise THz generation due to its clean pulse train.

About High Q Laser

High Q Laser is a supplier of all-diode-pumped solid-state lasers, i.e. femtosecond and picosecond lasers for scientific, medical and industrial markets. The company's solutions are based on the technologies of direct diode pumping and semiconductor saturable absorber mirrors (SESAMs). The corporate headquarter is located in Rankweil at the foot of the Alps in the most western part of Austria, Vorarlberg, near the Lake Constance and the City of Bregenz. The Headquarter contains the main fabrication facility, R&D labs, service facilities and administrative offices.

Source: High Q Laser