Press Release

High repetition rate fiber laser engineered for high-precision metrology applications

Menlo Systems, a leading developer and global supplier of instrumentation for high precision metrology, announces its latest femtosecond fiber laser that runs at 250 MHz repetition rate. M-Comb delivers the highest fundamental repetition rate available on a femtosecond fiber laser.

Its new features make the M-Comb an ideal core component of versatile octave spanning optical frequency generators with improved performance. The higher repetition rate offers several fundamental advantages for optical frequency measurements. It entails larger mode spacing between the frequency comb modes of the mode-locked laser, which ensures easy and straightforward frequency measurements. Further, the higher optical power per comb mode gives improved signal-to-noise in the beat with the external frequency to be measured.

The repetition rate is coarsely tunable by 2.5 MHz. It can be fine tuned and locked by a piezo actuator. The carrier envelope offset frequency can be coarsely set with an intracavity wedge within the free spectral range of 250 MHz and it can be fine tuned and stabilized by modulating the pump power. The average optical output power of >80 mW is sufficiently high to seed up to three amplifiers. Spectral bandwidth supports sub-150 fs pulse duration.

The M-Comb laser is a turn-key system built using telecom rated components. Its release is a further step Menlo Systems made in bringing the benefits of fiber technology to its patented, Nobel-prize winning frequency combs for challenging metrology applications.

We look forward to seeing you at CLEO/QELS 07, Baltimore, MD, USA at Booth# 1711-1712

Contact

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