

Press Release

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Compact double-fiber laser system for pump-probe measurements

Menlo Systems' ultracompact optical sampling system OSE offers the full flexibility of an ASOPS system, paired with the compactness and robustness of fiber lasers. The OSE contains two ultrafast erbium fiber lasers at 1560 nm wavelength, the pulse repetition rates of which are synchronized by high-precision electronics. Electronic tuning of the frequency difference of the two lasers results in a temporal shift of the femtosecond pulses. This allows scanning with femtosecond precision over a time window of several nanoseconds and at a kHz frame speed. Additionally, a TTL signal for data acquisition is provided.

Due to its modular design, the OSE is a versatile and robust double-laser system. Add-on external modules can be retrofitted for higher powers or tailored emission spectra. As an example, the OSE is being successfully employed in the field of non-destructive testing together with fiber-coupled terahertz systems.

Menlo Systems' proprietary figure 9® mode-locking technology guarantees reliable laser operation with output parameters remaining stable even under harsh conditions. The OSE is equipped with an embedded software system and allows for a fully automated, maintenance free, and easy operation via an integrated front screen, or via network through a cross-platform software interface. Menlo System's OSE offers a comfortable and time-saving solution for various application fields, among them pump-probe spectroscopy, picosecond ultrasound, and terahertz spectroscopy.



Figure: OSE Optical Sampling System

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About Menlo Systems:

Precision in Photonics. Together we shape light.

Menlo Systems GmbH is a leading developer and global supplier of instrumentation for high-precision metrology. The company with headquarters in the west of Munich is known for its Nobel Prize winning optical frequency comb technology. With subsidiaries in the US, Japan, and China, and a global distributor network, Menlo Systems is closely connected to its customers from science and industry. The main product lines are optical frequency combs, time and frequency distribution, terahertz systems, ultrafast and ultra-stable lasers, and complete systems for quantum technology applications. Besides standard products, Menlo Systems develops and manufactures tailored solutions for laser-based precision measurements.