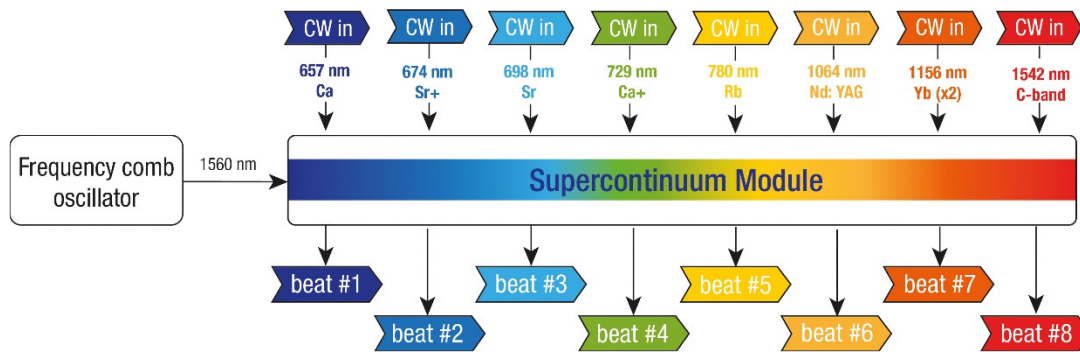


# Press Release

June 5, 2023

## Supercontinuum extension for optical frequency combs

Menlo Systems' SCM supercontinuum module is an extension for Menlo's optical frequency combs. The SCM generates up to 8 beat signals between ultra-low-noise frequency comb light and different CW lasers in the wavelength range of 650 to 1700 nm. It provides up to 8 FC/APC input ports (others on request) for CW lasers, and delivers the corresponding beat signals between the CW laser light and its closest neighboring comb mode through up to 8 BNC output ports. The super broad and smooth characteristics of the comb spectrum combined with Menlo Systems' latest generation optical beat detection units, ensure a high signal to noise ratio (SNR) of > 35 dB for the beat signals over the entire wavelength range. Since the supercontinuum spectrum is generated using a single amplifier branch, the SCM is an ideal tool for frequency comparisons of optical clocks based on different atomic species, as well as other high-end applications. The SCM can be configured flexibly; for example, a small number of channels can be selected initially, upgrading to the maximum number at a later stage. The upgrade and even adaptation of existing channels can be performed by a Menlo Systems service engineer directly on site. The SCM extension is available for the models FC1500-ULN<sup>nova</sup>, FC1500-ULN<sup>plus</sup>, and FC1500-Quantum.



**Figure 1:** Scheme of the SCM supercontinuum module providing 8 beat signals



**Figure 2:** The SCM supercontinuum module for up to 8 beat signals

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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.

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