

GECCO ULTRAFAST FEMTOSECOND LASER DATA SHEET

SELF-STARTING FEMTOSECOND LASER

Novanta develops high-precision lasers for cutting-edge ultrafast scientific and academic research through our globally recognized brands like Laser Quantum. Designed and built for accurate results, reliable operation, and straight-forward integration, our ultrafast lasers can be found in research and development facilities around the globe.

DESIGNED FOR INTEGRATION

The gecco is a fully equipped, compact femtosecond laser in a sealed enclosure, offering an average power of >600 mW and with a <20 fs pulse duration. The gecco is offered with repetition rates of 80 MHz (70-110 MHz) with optional repetition rate locking to an external source.

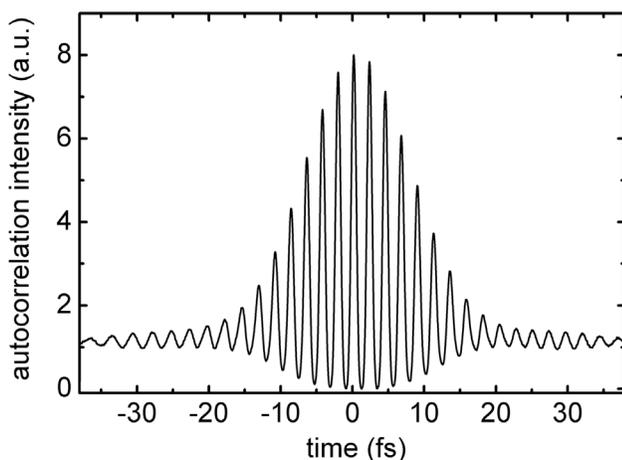
Designed for simple installation and system integration, the gecco oscillator features a highly compact, vibration resistant laser head with integrated pump source, and a separate, fully featured control unit.

This highly stable laser boasts an industry leading lifetime, very low cost of ownership and comes with 2 year/5000 hours warranty covering all operating specifications.

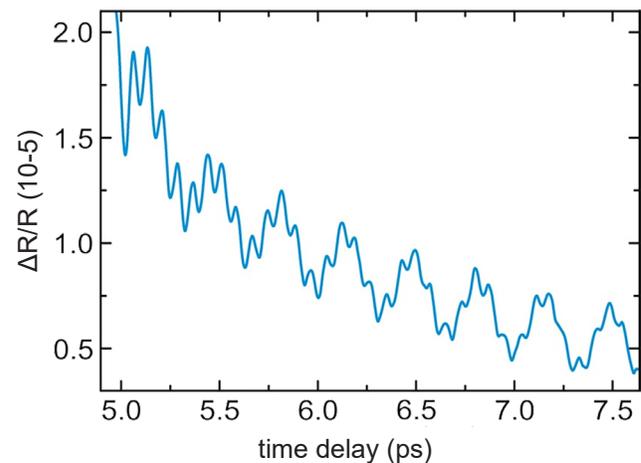


OPTIONAL REPETITION RATE AND ACTIVE FEEDBACK

If required, active repetition rate control can be implemented for locking to an external signal source. Coarse repetition rate control is enabled by motorized mirror movement, whereas high-speed and large-amplitude feedback is realized using two piezomechanic transducers. Regulation through the TL-1000 repetition rate stabilization unit achieves a timing jitter <300 fs (0.1 Hz to 100 kHz). Alternatively, the two piezos can be driven by customer supplied electronics.



Autocorrelation trace of gecco indicating emission of pulses with 15 fs duration.



Application example: Pump-probe signature of coherent optical phonons in ZnO measured with the gecco.

