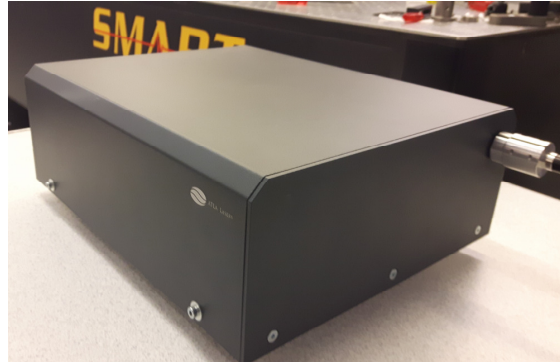
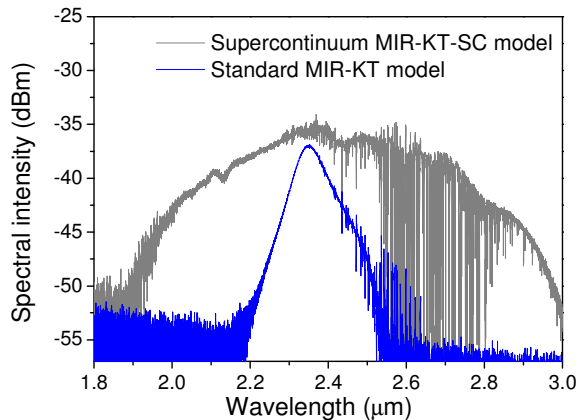


MIR-KT Series Femtosecond Frequency Comb Lasers *“Ti:sapphire of the infrared”*



Key features at a glance

- 30 MHz to GHz repetition rate, 100s of nm broad pulse spectral profiles and ultra-short pulse duration (≥ 50 fs)
- Ultra-broad spectral coverage (2- 3,5 μm) in supercontinuum mode
- Tuning range in CW regime from 2 to $> 3\mu\text{m}$
- Superb beam quality with typical $M^2 \approx 1.1$

ATLA Lasers MIR-KT Series is a family of compact fiber laser pumped, ultra-short pulsed solid-state lasers, designed to produce stable high quality spectral and temporal pulse shapes over a large pulse repetition frequency range from several MHz to GHz. With broad range of laser parameters available, users can select the ideal combination of pulse repetition rate, pulse duration and spectral bandwidth to maximize performance for specific application.

The MIR-KT frequency comb lasers offer high quality stable spectral and temporal pulse profiles with pulse durations ranging between 40 fs to few ps and this performance is maintained from 50 MHz to 1 GHz with high peak powers and exceptional pulse stability (low short-term and long-term noise).

ATLA Lasers MIR-KT Series architecture offers compactness and user-friendliness of the best commercial Ti-sapphire lasers with advantage of mid-infrared wavelength coverage and fiber-based pump design.

It allows customization of the laser parameters for specific application and superior performance enabling ultra-high sensitivity measurements and ultra-fine material processing. The pulse stability and beam quality rivals the performance offered by sophisticated optical parametric devices, typical in this wavelength range. In addition, MIR-KT Series can be custom designed to produce supercontinuum extending over the wide range from 2 to $> 3.4 \mu\text{m}$.

Applications:

- Trace-gas sensing and stand-off detection of hazardous gases, oil and gas applications
- Biomedical applications – surgery, multi-photon imaging, breath analysis
- Mid-IR OPO pumping, mid-IR supercontinuum generation
- Micro-processing - thermally sensitive micro-machining of composites, glasses, polymers, or semiconductor materials
- Accelerated precision marking