

# FemtoWHITE CARS

## Supercontinuum Device for Coherent Anti-Stokes Raman Scattering Applications



- Maintenance free
- Utilization of existing Ti:Sapphire laser
- Compatible with standard holders

Supercontinuum for CARS - the easy way!

With the use of the FemtoWHITE CARS you eliminate the need for more complex laser systems like cavity dumped oscillators or two synchronized oscillators. Pump the FemtoWHITE CARS with an 800nm range femtosecond laser and it generates a dual peak spectrum optimized for CARS applications - without the hassle of fiber cleaving and handling.

The two closely spaced zero-dispersion wavelengths of the FemtoWHITE CARS enables stable, low-noise supercontinuum generation and allows for control of the spectral shape by tuning the pump wavelength.

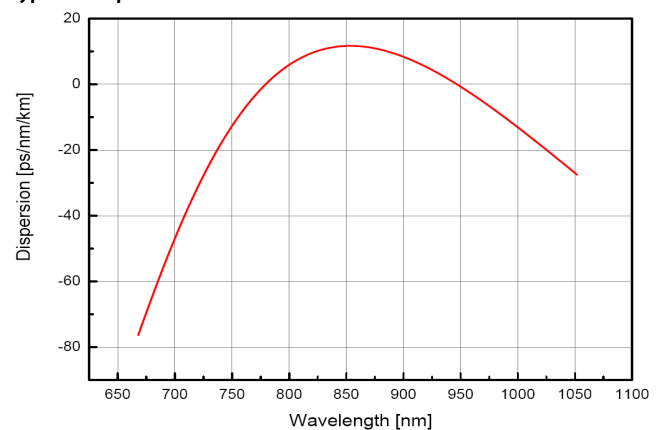
Coupling in and out of the device is easily realized by using standard microscope objective with high magnification mounted on XYZ stages.

### Technical advantages

- Optimized for 800nm range fs pumping
- Dual Peak output suitable for CARS
- Sealed and cleanable end-facets
- End-facet beam expansion
- Robust 1" (2.5 cm) aluminum housing
- Compact: Only 4.7" (12cm) in length



### Typical dispersion

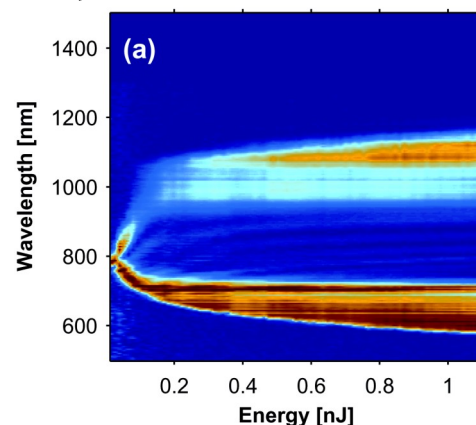


### Specifications

Short zero dispersion wavelength	~775 nm
Long zero dispersion wavelength	~945 nm
Core diameter	1.4 $\mu\text{m}$
Cut-off wavelength	<500 nm
MFD inside fiber	1.36 $\mu\text{m}$
Spot size at end facets	39-78 $\mu\text{m}$ (*)
Numerical Aperture @ 780 nm 5%	0.44
Nonlinear coefficient @ 780 nm	~130 (W·km) <sup>-1</sup>

\* Spotsizes varies with wavelength

### Example of output



Output from FemtoWHITE CARS pumped at 790 nm – 50 fs pulses

FWCARS-090612