

FemtoWHITE

Supercontinuum devices



FemtoWHITE 800 and FemtoWHITE CARS supercontinuum devices

Ideal for supercontinuum generation

With the FemtoWHITE devices you eliminate the need for more complex laser systems like cavity dumped oscillators or synchronized oscillators.

Choose from two versions of the FemtoWHITE

Depending on the application, choose from two different versions of the FemtoWHITE.

It is easy to couple in and out of both devices using a standard microscope objective with high magnification mounted on XYZ stages.

FemtoWHITE 800 supercontinuum device

Pump the FemtoWHITE device with an 800 nm range femtosecond laser to obtain a polarized octave-spanning output without the hassle of fiber cleaving and handling.

The tailored dispersion curve enables stable, low-noise supercontinuum generation using a Ti:Sapphire.

The FemtoWHITE 800 is polarization maintaining.

FemtoWHITE CARS supercontinuum device for Coherent Anti-stokes Raman Scattering applications

Pump the FemtoWHITE device with an 800 nm range of femtosecond laser to generate a dual peak spectrum optimized for Coherent Anti-stokes Raman Scattering (CARS) applications without any fiber cleaving and handling.

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

With its dual peak output it is suitable for CARS.

Features

- Maintenance-free
- Utilization of existing Ti:Sapphire laser
- Compatible with standard holders
- Optimized for 800 nm range fs pumping
- End-facet beam expansion
- Sealed and cleanable end-facets
- Compact 4.7" (12 cm) design
- Robust Ø 1" (Ø 2.5 cm) aluminum housing

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Applications

CARS

Supercontinuum generation

Designed for Ti:Sapphire pumping at 800 nm

Specifications

Optical

Model	FemtoWHITE 800	FemtoWHITE CARS
Short zero-dispersion wavelength [nm]	≈ 750	≈ 775
Long zero-dispersion wavelength [nm]	≈ 1260	≈ 945
Core diameter [μm]	1.8 ± 0.3	1.4 ± 0.3
HOM cut-off wavelength [nm]	< 650	< 500
Mode-field diameter, 1/e ² [μm]	1.6 ± 0.3	1.3 ± 0.3
Spot size at end facets [μm] ¹	9 - 25	39 - 78
NA (5%)	0.38 @ 780 nm	< 1000 @ 780 nm
Non-linear coefficient [(W · km) ⁻¹]	≈ 95 @ 780 nm	≈ 130 @ 780 nm

¹ Spotsizes varies with wavelength.

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All NKT Photonics products are produced under our quality management system certified in accordance with the ISO 9001:2015 standard.

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