

customized.

Innovative laser systems tailored by our experts to advance your research!



FemtoFiber bCARS

Cutting-edge | Customized | Reliable | Simple & Turn-key

Laser system for broadband (bCARS), impulsive (iSRS), and standard Raman Spectroscopy (CARS/SRS)

- Broadband coverage $< 500 - > 5500 \text{ cm}^{-1}$ using bCARS
- Spectral resolution $< 15 \text{ cm}^{-1}$
- Tunable CARS option covering $< 1100 - > 3700 \text{ cm}^{-1}$
- Integrated time-delay and frequency modulation options
- Simple, turn-key, and compact solution

Contact our experts
and discuss your
laser solution.



www.toptica.com/customized

FemtoFiber bCARS

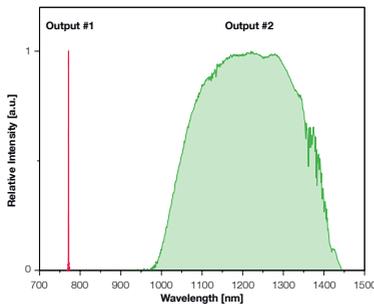


DANGER – VISIBLE AND INVISIBLE LASER RADIATION. AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION, CLASS 4 LASER PRODUCT, EN60825-1:2014

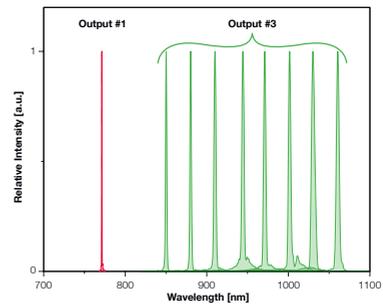
Specifications			
Laser output	Output #1	Output #2	Output #3 (Optional)
Wavelengths	780 nm (+/- 10 nm)	980 -1400 nm (broadband)	850 -1100 nm (tunable)
Power	100 mW*	30 mW*	>5 mW (@850 - 1000 nm)
Pulse duration	> 3.4 ps (< 100 fs short pulse option available)	< 25 fs**	> 0.8 ps
Spectral bandwidth	< 15 cm ⁻¹	---	< 30 cm ⁻¹ (@850 - 1000 nm)
Covered wavenumbers	---	< 500 - > 5500 cm ⁻¹ (broadband)	< 1100 - > 3700 cm ⁻¹ (tunable)
Repetition rate	80 MHz (others on request)		
Amplitude modulation (optional)	Pulse-picking down to 40, 20, 10 MHz***	Pulse-picking down to 40, 20, 10 MHz***	
Relative timing control (optional)	Integrated delay line to adjust the relative timing between the laser outputs		
Polarization	> 95 %, horizontal		
Output coupling	Free space		
Power consumption	< 80 W		
Cooling	Air-cooled		

* higher power upon request | ** specification for shortest pulse settings | *** others upon request

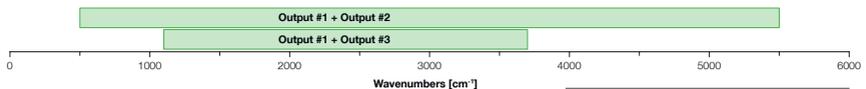
Specifications are subject to change without further notice



Typical emission spectrum of Output #1 and broadband Output #2 (linear plot)



Typical emission spectrum of Output #1 and tunable Output #3 (linear plot)



Spectral coverage for CARS / SRS of the laser system