

# PICUS DUO

PICOSECOND LASER SOURCE FOR COHERENT RAMAN IMAGING

The **PICUS DUO** is the ideal laser source for multicolor CARS and SRS imaging. The turn-key **PICUS DUO** offers a compact footprint, no need for water cooling or an isolated table.

Wavelength conversion in an all-fiber optical parametric oscillator, pumped by a stable fiber laser provides an unmatched combination of tuningspeed and tuning range.



## HIGHEST AVAILABLE TUNING SPEED

- Tunable in 5 ms across 700 - 3200  $\text{cm}^{-1}$
- No external delay required

## OPTIMIZED FOR CARS & SRS MICROSCOPY

- Stokes output shot-noise limited at 1 mA
- Integrated AM and FM modulator
- Optimized low-noise detector available

## CARE-FREE OPERATION

- Plug & Play installation
- Hands- and maintenance-free operation
- Air-cooled & compact: 40x40x20  $\text{cm}^3$

## Applications

CRI with inter-image wavelength switching

Live virtual H&E contrast via CRI

Multicolor pump-probe experiments

*Contact us for  
various  
customizations!*

# Product Specifications

Optical	Output A	Output B
Tuning range	770 - 980 nm (Signal)	1022 - 1052 nm
Tuning speed	<5 ms	<1 ms
Average power	100 - 300 mW	300 - 500 mW
Covered wavenumbers	700 - 3200 cm <sup>-1</sup>	
Pulse duration	7 ps	
Spectral bandwidth	< 12 cm <sup>-1</sup>	
Repetition rate	40.5 MHz	
RMS noise	< 1 %	
Polarization	linear, 100:1	

## Electrical

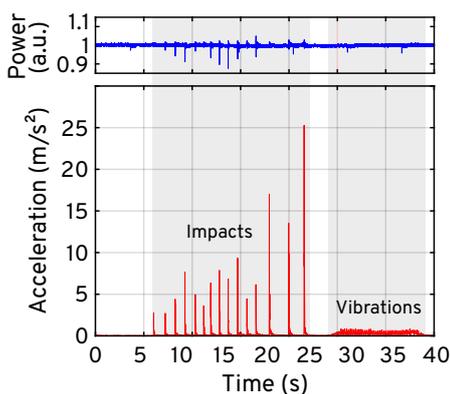
Interfaces	Communication through USB or RS232 Trigger in for high speed wavelength tuning Monitor out for external synchronisation
Software interfaces	GUI and custom serial API, e.g., via Python & Matlab

## Mechanical

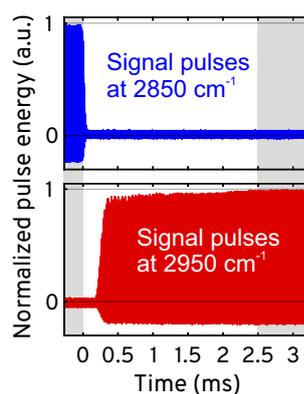
Laser head dimension	42x42x20 cm <sup>3</sup>
Laser controller dimension	43x31x13 cm <sup>3</sup>
Cooling	Air-cooled
Weight	25 kg
Standard umbilical length	2 m

# Performance

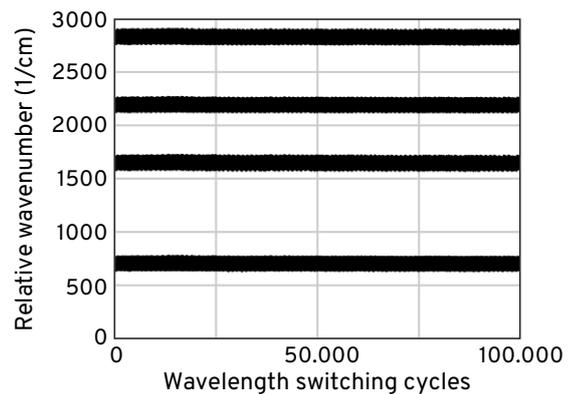
Shock test on laboratory cart



Ultra-fast switching



Reliable switching



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The product is constantly being improved, therefore the specifications are subject to change without notice. March 2021 | Rev. 2.0