

# Lithium Six 525

## Cost effective and compact high power green ultra-short pulse laser



Lithium Six 525 is a frequency doubled green laser that emits femtosecond pulses with high average powers up to 5 Watt. The solid-state technology of Lithium Six 525 guarantees soliton pulses with unbeatable spatial and temporal quality.

The extreme peak to peak power stability, the excellent beam pointing steadiness and the long-term power stability of Lithium Six 525 allows to push the resolution well beyond the diffraction limit challenging the state-of-the-art in micromachining processes.

### Features and benefits

- Ultra-low noise and high operational stability
- Available with average power from 1.5 to 5 Watt
- Spatially and temporally clean femtosecond pulses for highly efficient non-linear interaction
- Available with repetition rate from 220 to 40 MHz and wavelength in the range from 515 to 535 nm for experimental optimization
- Compact single enclosure
- Cost-effective
- Tested in harsh environment for improved reliability

### Applications

#### Non-linear optics

- Harmonic generation
- Spatial and temporal focusing

#### Material processing

- Femtosecond lithography
- Twophoton polymerization

### Options

- AOM for fast power control

## Specifications

Parameters	Lithium Six 525-1.5	Lithium Six 525-2.5	Lithium Six 525-3.5	Lithium Six 525-5
Center wavelength	$525 \pm 2.5 \text{ nm}^*$	$525 \pm 2.5 \text{ nm}^*$	$525 \pm 2.5 \text{ nm}^*$	$525 \pm 2.5 \text{ nm}^*$
Pulse duration	< 130 fs	< 140 fs	< 160 fs	< 200 fs
Average power	> 1.5 W	> 2.5 W	> 3.5 W	> 5 W **
Pulse energy	> 18.75 nJ	> 31.25 nJ	> 43.75 nJ	> 62.5 nJ
Repetition rate	80 MHz ***			
Spectral shape	Gaussian			
Beam quality	M2 < 1.15			
PER	> 23 dB			
Amplitude noise	< 0.1 % rms			
Warm-up time	< 15 min			
Operational temperature	15 - 35 °C			
Head dimensions	430 X 222 X 114 mm			
Weight	7.5 Kg			

\* Center wavelength in the range from 515 to 535 nm are available upon request

\*\* Average power > 5 W are available upon request

\*\*\* Different repetition rates ranging from 220 to 40 MHz can be provided

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Specifications are subject to change without notice.