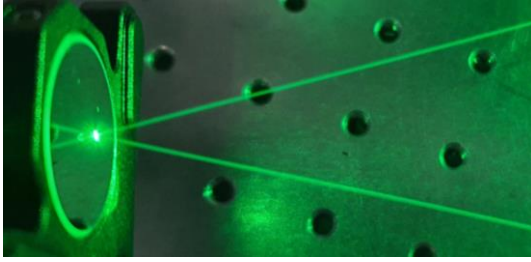
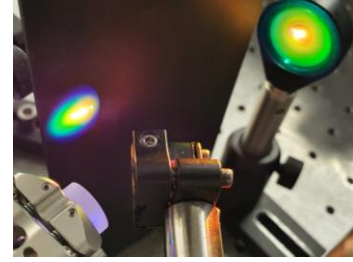


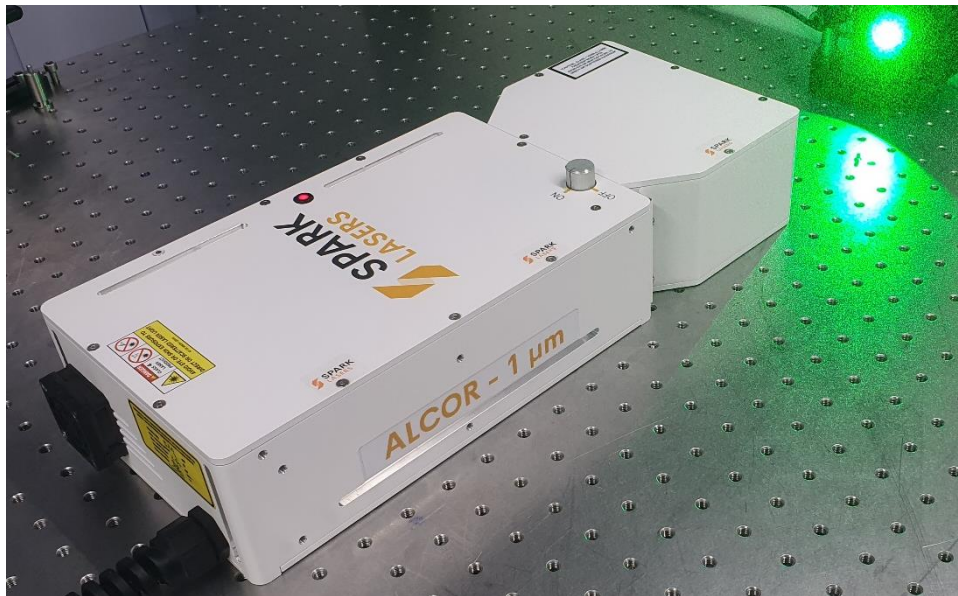
# ALCOR 520



Nanophotonics



Nonlinear Optics



## COMPACT GREEN FEMTOSECOND LASER

520 nm / 180 fs / Up to 2 W

Spark Lasers' ALCOR 520 is a new generation of high-power femtosecond laser emitting in the green. ALCOR 520 produces clean and stable pulses with a duration of 180 fs at a typical frequency of 80 MHz. ALCOR 520 is easy to install and use in a wide variety of environments thanks to its small size, high efficiency and high performance.

ALCOR 520 includes computer-controlled features such as fast power modulation or fine calibrated power adjustment. ALCOR's innovative fiber-based design offers high stability, high reliability without any maintenance making it the perfect industrial laser for scientific applications.

# TECHNICAL SPECIFICATIONS\*

General	ALCOR 520-0.8	ALCOR 520-2
Wavelength	520 nm	
Average power	0.8 W	2 W
Pulse duration (1)	180 fs	
Group Delay Dispersion (2)	NA	
Repetition rate (3)	80 +/- 1.5 MHz	
Energy per pulse (4)	10 nJ	25 nJ
Beam parameters		
M <sup>2</sup> (5)	< 1.2	
Beam diameter (6)	1.2 mm	
Divergence (7)	< 1 mrad	
Ellipticity (8)	> 0.9	
Output beam	Collimated	
Polarization	> 500:1, vertical	
Stability		
Long-term power stability RMS (9)	< 1%	
Short-term power stability RMS (10)	< 0.5%	
Electrical		
Synchronization output	TTL	
External Interfaces	RS-232, USB, TCP/IP	
Software interfaces	GUI, RS-232 serial communication protocol	
Power consumption	< 100 W	
Cooling	Air	
Mechanical		
Laser head dimensions	421 x 165 x 89 mm	
Laser head weight	7 kg	
Control unit	19" / 3U height	
Control unit weight	7.5 kg	
Umbilic length	3 m	
Environmental		
Operational temp range	19-30°C	
Storage temp range	0-40°C	
Operational max altitude	2000 m	
Operational humidity	non condensing	
Storage humidity	80 % RH	

- (1) Sech<sup>2</sup> fit, autocorrelation measurement, +/- 20 fs
- (2) User adjustable group delay dispersion compensation
- (3) Other value upon request
- (4) Energy defined as the ratio between average power and rep
- (5) M<sup>2</sup> measurement according to ISO method (4 sigma)
- (6) Beam diameter at output port @ 1/e<sup>2</sup>
- (7) Half divergence, far field measurement, ISO method
- (8) Minor over major diameter ratio, far field measurement
- (9) Over a 15 minute interval
- (10) Over an 8 hour interval @22°C +/-1°C

\* This information is subject to modifications without prior notice.

