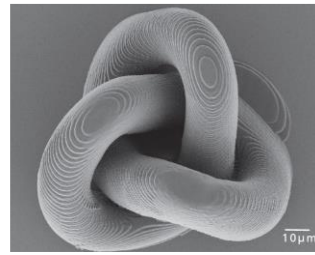


Two-photon microscopy



2P polymerization



COMPACT HIGH-POWER FEMTOSECOND LASER

780 nm / <150 fs / Up to 0.8 W

Spark Lasers' ALCOR 780 is a new generation of high-power femtosecond laser emitting at 780 nm. ALCOR 780 produces clean and stable pulses with a duration of less than 150 fs at a typical frequency of 80 MHz. ALCOR 780 is easy to install and use in a wide variety of environments thanks to its small size, high efficiency and high performance.

ALCOR 780 includes computer-controlled GDD precompensation and other advanced 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 780
Wavelength	780 nm
Average power	0.8 W
Pulse duration (1)	< 150 fs
Group Delay Dispersion (2)	Adjustable from 0 to -30 000 fs ²
Repetition rate (3)	80 +/- 1.5 MHz
Energy per pulse (4)	10 nJ
Beam parameters	
M ² (5)	< 1.2
Beam diameter (6)	1.2 mm
Divergence (7)	< 1 mrad
Ellipticity (8)	> 0.9
Output beam	Collimated
Polarization	> 100:1, 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	286 x 165 x 79 mm
Laser head weight	5 kg
Control unit	19" / 3U height
Control unit weight	12 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) Sech² 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 repetition rate
- (5) M² measurement according to ISO method (4 sigma)
- (6) Beam diameter at output port @ 1/e²
- (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.

