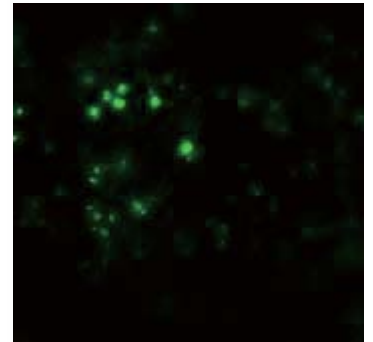


ALCOR SERIES



920 nm & 1064 nm / 100 fs PULSES / HIGH POWER / HIGH REPETITION RATE

ULTRA-COMPACT FEMTOSECOND LASER FOR TWO-PHOTON EXCITATION

ALCOR is the most advanced femtosecond fiber laser emitting at 920 nm or 1064 nm specifically designed for Multiphoton microscopy instrumentation and industrial OEM integration working with 24/7 operations, in an ultra-compact, robust and air-cooled format. While being air-cooled and designed with utmost accuracies, it may be mounted in all imaginable positions and environments allowing eased and simplified use with direct injection within any microscope for large span of applications.

The ALCOR 920 nm is ideal for two-photon imaging of green fluorophores (GFP) and calcium indicators such as GCaMP while 1064 nm series is the perfect fit for all red-shifted indicators such as RCaMP, dtTomato, MCherry for two-photon excitation microscopy thanks to finely adjustable GDD precompensation. ALCOR ensures optimal imaging and excitation with its tunability range for GDD precompensation.

The laser can be optionally equipped with XSight fully integrated electronics for fine and fast power modulation (analog and TTL).

Besides, should your application require more versatility, FLeXSight unique feature with fiber delivery can also be mounted on the beam output to deliver femtosecond pulses as close as possible to the sample while animal moves freely and data is acquired.

SPARK LASERS is leading the market since ALCOR has been answering market's needs by offering single wavelength, designed for microscopy, advanced features, maintenance-free, best-in-class per its cost of ownership/performance report.

TECHNICAL SPECIFICATIONS*

	ALCOR		ALCOR XSight		ALCOR FLeXSight	
AVERAGE POWER	1W	2W	0.75W	1.5W	0.4W	0.8W
WAVELENGTH	920 nm or 1064 nm - (1040 nm OPTIONAL)					
PULSE DURATION	100 fs					
GROUP DELAY DISPERSION PRECOMPENSATION	electronically tunable from 0 down to - 60 000 fs² (OTHERS OPTIONAL)					
REPETITION RATE	Fixed 80 MHz (OTHER OPTIONAL)					
M²	< 1.2		< 1.2		<1.3	
OUTPUT BEAM DIAMETER	1 mm (+/- 0.2)		1 mm (+/- 0.2)		1.3, 2.4 or 4 mm	
MODULATION	N/A		TTL & ANALOG		TTL & ANALOG	
ELLIPTICITY			> 0.9			
POWER ADJUSTMENT	Alignment mode or Full power		0 to 100 %		0 to 100 %	
WARM-UP TIME			< 5 min			
POWER OUTPUT	FREE SPACE		FREE SPACE		2 M LONG FIBER DELIVERY - COLLIMATED BEAM	
POWER STABILITY & RMS NOISE			< 1% RMS		< 1%	
POLARIZATION			Linear			

ELECTRICAL

EXTERNAL INTERFACES	High speed external synchronisation (Sync. Out), communication through USB, RS 232, TCP/IP with remote control for fast intervention					
SOFTWARE INTERFACES	Intuitive GUI, Serial communication protocol					
POWER CONSUMPTION	100 to 240 VAC, < 150 W					

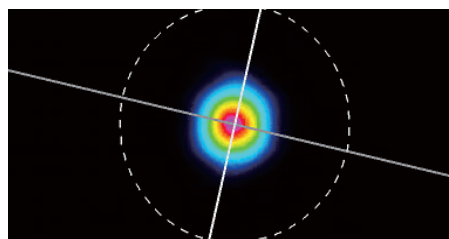
MECHANICAL

LASER HEAD DIMENSIONS & WEIGHT	252 x 151 x 91 mm ³ < 5 kg (with collimated beam)	387 x 151 x 91 mm ³ < 7 kg (with collimated beam)	387 x 151 x 91 mm ³ < 7 kg (with collimated beam)
LASER CONTROLLER DIMENSIONS & WEIGHT	19"/3U rack – 7,5 kg		
STANDARD UMBILICAL LENGTH	3 m		
COOLING	Air cooled		

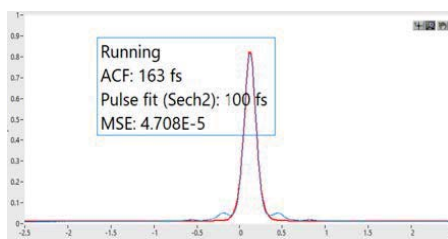
OPTIONS

GDD	Group Delay Dispersion pe-compensation (variable down to -90 000 fs ²)					
CUSTOM PULSE REPETITION FREQUENCY	40 MHz					
DUAL HEAD	Available at 920 nm + 1064 nm (or 1040 nm upon request) with 1 and only rack controller					

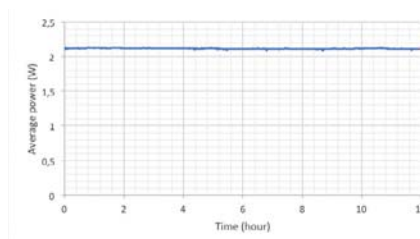
DIMENSIONS & PERFORMANCE



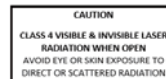
BEAM PROFILE



AUTOCORRELATION TRACE



AVERAGE POWER STABILITY



* This information is subject to modifications without prior notice.

Contact : +33 557 977 472 / info@spark-lasers.com

www.spark-lasers.com
PNEUM Co., Ltd.
 5-15-3 Minamikoshigaya, Koshigaya-shi,
 Saitama-ken, 343-0845, Japan
 TEL: 81-48-985-2720
 FAX: 81-48-985-2721
 info@pneum.co.jp 2005