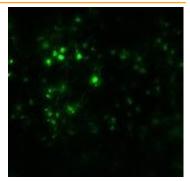
BIOPHOTONICS FEMTOSECOND FIBER LASER

ALCOR SERIES





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

SPARK

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).

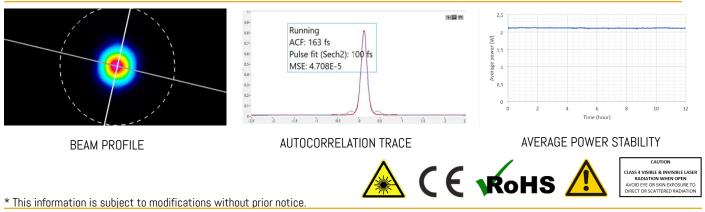
Besides, should your application require more versatility, FLeXSight unique feature with fiber delivery can also be mounted on the beam output to deliver femtosecond pulses as close as possible to the sample while animal moves freely and data is acquired.

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^{*}

	ALCO	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 MI	Hz (other optic	INAL)	
M ²	< 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 SPAC	CE	FRE	E SPACE	2 M LONG FIBER DELIVERY - COLLIMATED BEAM	
POWER STABILITY & RMS NO	DISE		< 1% RMS	<1%	6	
POLARIZATION			Li	near		
ELECTRICAL						
EXTERNAL INTERFACES	High speed	external synch	ronisation (Sync. Out remote control		ation through USB, RS 232, TCP/IP with vention	
SOFTWARE INTERFACES	Intuitive GUI, Serial communication protocol					
POWER CONSUMPTION			100 t	o 240 VAC, <	150 W	
MECHANICAL						
LASER HEAD DIMENSIONS & WEIGHT	252 x 151 x < 5 kg (with collir			51 x 91 mm ³ collimated b		
LASER CONTROLLER DIMENSIONS & WEIGHT			19"/3U rack – 7,5 kg			
TANDARD UMBILICAL LENGTH		3 m				
COOLING		X		Air cooled		
OPTIONS						
GDD	Group		oup Delay Dispersion	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



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