

# ALCOR 1- $\mu$ m SERIES



100 FS PULSES / HIGH POWER / HIGH REPETITION RATE

## ULTRA-COMPACT FEMTOSECOND LASER FOR BIOPHOTONICS

ALCOR produces high-average power with ultrashort femtosecond pulses (100 fs) at high repetition rate (80 MHz standard, others optional) in an ultra-compact and robust format. ALCOR is a fiber laser with a best-in-class quality and collimated beam providing high-stability.

Integrating state of the art high-power full package amplifiers and pulse management, ALCOR offers remarkable pulse quality at high average power with no maintenance required.

In addition to this, ALCOR beam can be injected directly into any microscope and standardly embeds a Group Delay Dispersion precompensation which can be adjusted electronically through our GUI or serial communication protocol between 0 and -30 000 fs<sup>2</sup>.

### CORE SPECIFICATIONS

- / 1064 nm
- / High repetition rate : 80 MHz
- / High power : from 1 W to 2 W
- / 100 fs

### USABILITY

- / Ultracompact, robust & air cooled fiber laser
- / Plug'n play : < 5 min set up, sync. out
- / Intuitive user interface
- / Additional wavelength in option

### APPLICATIONS

- / Two-photon microscopy
- / Neuroscience

### CUSTOMER CARE

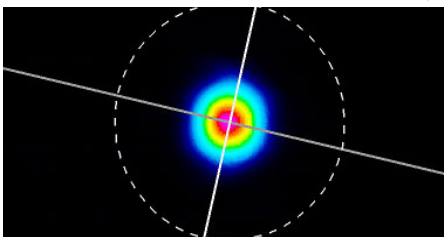
- / 12-month warranty
- / Worldwide technical support
- / Laser customization

# TECHNICAL SPECIFICATIONS\*

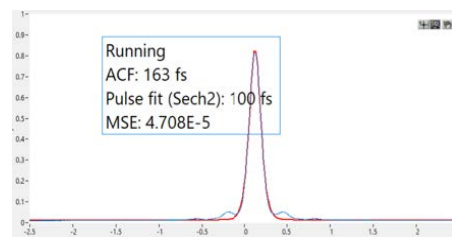
## ALCOR 1064

AVERAGE POWER	1W	2W
WAVELENGTH	1064 nm (1040 nm or OTHER OPTIONAL)	
PULSE DURATION	100 fs (OTHER OPTIONAL) with standard GDD precompensation from 0 down to - 30 000 fs <sup>2</sup>	
REPETITION RATE	Fixed 80 MHz (OTHER OPTIONAL)	
M <sup>2</sup>	< 1.2	
BEAM WAIST DIAMETER	1 mm	
BEAM POINTING STABILITY	< 25 μrad/°C	
ELLIPTICITY	> 0.9	
WARM-UP TIME	< 5 min	
POWER STABILITY	< 1% RMS	
RMS NOISE	< 1%	
POLARIZATION	linear, > 100:1	
<b>ELECTRICAL</b>		
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, < 400 W	
<b>MECHANICAL</b>		
LASER HEAD DIMENSIONS & WEIGHT	252 x 151 x 91 mm <sup>3</sup> – < 5 kg (with collimated beam)	
LASER CONTROLLER DIMENSIONS & WEIGHT	19"/3U rack – 7,5 kg	
STANDARD UMBILICAL LENGTH	3 m	
TECHNICAL DRAWINGS FOR DOWNLOAD	<a href="#">ALCOR</a>	
COOLING	Air cooled	
<b>OPTIONS</b>		
GDD	Group Delay Dispersion pe-compensation (variable down to -50 000 fs <sup>2</sup> )	
ADDITIONAL WAVELENGTH	915 to 930 nm	
CUSTOM PULSE REPETITION FREQUENCY	40 MHz	
CUSTOM PULSE DURATION	Any other pulse duration available upon request	

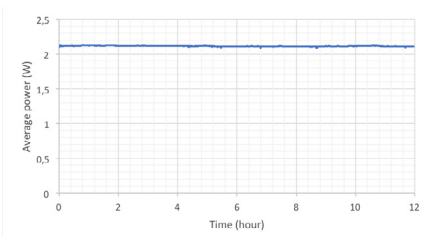
## DIMENSIONS & PERFORMANCE



BEAM PROFILE



AUTOCORRELATION TRACE



AVERAGE POWER STABILITY



CAUTION  
CLASS 4 VISIBLE & INVISIBLE LASER  
RADIATION WHEN OPEN  
AVOID EYE OR SKIN EXPOSURE TO  
DIRECT OR SCATTERED RADIATION

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

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