ALCOR SERIES





<170 FS PULSES / HIGH POWER / HIGH REPETITION RATE

ULTRA-COMPACT FEMTOSECOND LASER

FOR BIOPHOTONICS

ALCOR produces high-average power with ultrashort femtosecond pulses (down to <170 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 fullt package amplifiers and pulse management, ALCOR offers remarkable pulse quality at high average power with no maintenance required.

CORE SPECIFICATIONS

/ High repetition rate : 80 MHz / High power : from 1 W to 2 W

/ < 170 fs (standard)

USABILITY

/ Ultracompact, robust & air cooled fiber laser

/ Plug'n play : < 5 min set up, sync. out / sync .in

/ Intuitive user interface

/ Additional wavelength in option

APPLICATIONS

/ Multiphoton microscopy / Two-photon microscopy

/ Neuroscience

CUSTOMER CARE

/ 24-month warranty

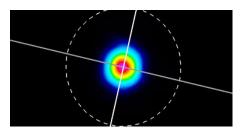
/ Worldwide technical support

/ Laser customization

TECHNICAL SPECIFICATIONS*

	ALCOR IR-1	ALCOR IR-2
AVERAGE POWER	1W	2W
WAVELENGTH	920 nm (other optional)	
PULSE DURATION	< 170 fs (OTHER OPTIONAL)	
REPETITION RATE	Fixed 80 MHz (OTHER OPTIONAL)	
M^2	< 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	
ELECTRICAL		
EXTERNAL INTERFACES	High speed external synchronisation (Synch. Out), communication through USB, RS 232, TCP/IP	
SOFTWARE INTERFACES	Intuitive GUI, Serial communication protocol	
POWER CONSUMPTION	100 to 240 VAC, < 400 W	
MECHANICAL		
LASER HEAD DIMENSIONS & WEIGHT	$235 \times 144 \times 83.85 \text{ mm}^3 - < 5 \text{ kg (with collimated beam)}$	
LASER CONTROLLER DIMENSIONS & WEIGHT	19"/3U rack – 7,5 kg	
STANDARD UMBILICAL LENGTH	3 m	
TECHNICAL DRAWINGS FOR DOWNLOAD	<u>ALCOR</u>	
COOLING	Air cooled	
OPTIONS		
GDD	Group Delay Dispersion pe-compensation (variable down to -30 000fs²)	
CUSTOM PRIMARY WAVELENGTH	915 to 930 nm	
ADDITIONAL WAVELENGTH	1030 nm, 1040 nm, 1055 nm, 1064 nm	
CUSTOM PULSE REPETITION FREQUENCY	40 MHz	
CUSTOM PULSE DURATION	< 120 fs	
F-SYNC	Fine-tuning PRF synchronization around a fixed central frequency.	

DIMENSIONS & PERFORMANCE

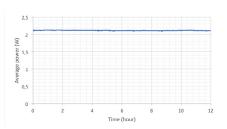


Running

ACF: 244 fs

Pulse fit (Sech2): 170 fs

MSE: 4.744E-5



BEAM PROFILE AUTOCORRELATION TRACE

AVERAGE POWER STABILITY



Can synchronize with any 3rd party master device. Electronic setting.





