

ALCOR 1- μm SERIES



<140 FS PULSES / HIGH POWER / HIGH REPETITION RATE

ULTRA-COMPACT FEMTOSECOND LASER FOR BIOPHOTONICS

ALCOR produces high-average power with ultrashort femtosecond pulses (down to <140 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.

CORE SPECIFICATIONS

- / High repetition rate : 80 MHz
- / High power : from 1 W to 2 W
- / < 140 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 1064

AVERAGE POWER	1W	2W
WAVELENGTH	1064 nm (1040 nm or OTHER OPTIONAL)	
PULSE DURATION	< 160 fs (OTHER OPTIONAL) with standard GDD precompensation from 0 down to - 30 000 fs ²	
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 (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	

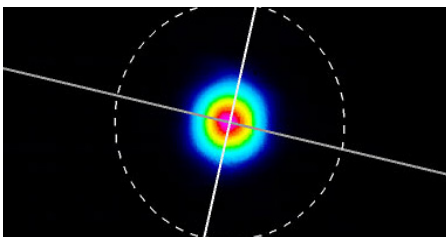
MECHANICAL

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

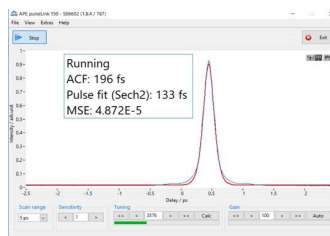
OPTIONS

GDD	Group Delay Dispersion pe-compensation (variable down to -50 000 fs ²)	
ADDITIONAL WAVELENGTH	915 to 930 nm	
CUSTOM PULSE REPETITION FREQUENCY	40 MHz	
CUSTOM PULSE DURATION	< 120 fs	

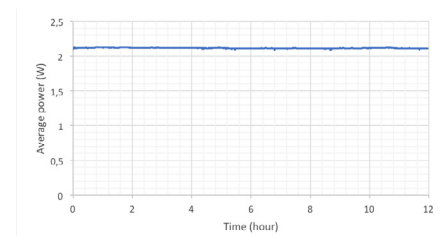
DIMENSIONS & PERFORMANCE



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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