YLMO-930

Femtosecond Fiber Laser for Life Sciences and Microscopy

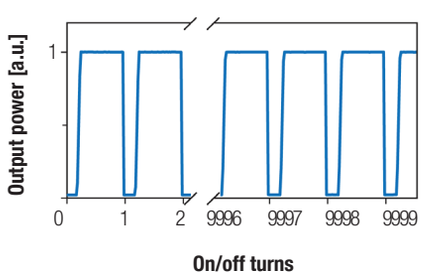
MenloSystems

Menlo Systems' femtosecond fiber laser integrates the latest developments in fiber technology and incorporates these enhancements into an easy-to-use solution.
Our patented figure 9® technology delivers reliable and consistent mode-locking, which is ideally suited to ensure long-term stable operation in demanding environments. The YLMO-930 with its PM-fiber design guarantees excellent stability and consistent long-term performance.
The YLMO-930 is engineered with life science applications in mind. The pulses can be pre-chirped to attain their shortest width within their intended target sample. The impeccable beam quality, both spatially and temporarily, ensures the most efficient use of the deposited energy for the targeted multiphoton process.
The installation of the laser system is as easy as it gets, taking only a few minutes. For ease of operation, the laser is switched on by the push of a single button. The maintenance free operation translates to a worry-free device that enables our customers to focus their time and resources on their actual application.

PERFORMANCE DATA

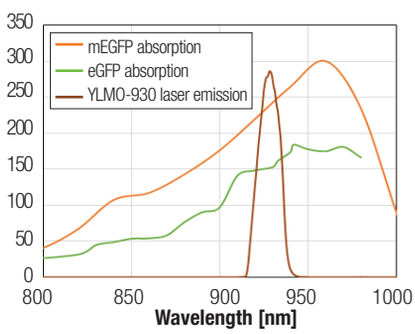
Reliability

Output powers of the integrated YLMO laser oscillator based on the figure 9® technology. The laser power returns to its set output power for each one of the performed 10. 000 on/off cycles.



GFP excitation

Absorption spectra of GFP proteins plotted together with the output spectrum of the YLMO-930. The laser is ideally suited for 2-photon fluorescence imaging with GFP and its variants.



KEY SPECIFICATIONS

- Wavelength 930 nm
- Output Power >1W
- Repetition Rate 50-100 MHz
- Pulse Width <140 fs (typ.120 fs)
- Pulse Energy >10 nJ

APPLICATIONS

- Multi-Photon Excitation
- Activation of GFP

FEATURES

- figure 9® Technology
- Reliable Mode-Locking
- Long-Term Stable Operation
- Robust Design for Harsh Environments
- Fast and Easy Installation
- Maintenance-Free Operation
- Compact Design and Silent Operation
- Simple Front-Panel and Easy Software Interface
- Fast Startup within 60 Seconds
- User-Settable Pre-Chirped Pulse Compressor

OPTIONS

- **VARIO**
  Factory-set repetition rates of 50, 80, or 100 MHz
- **MULTIBRANCH**
  Second output for seeding multiple amplifiers

ASK US ABOUT

- Fiber coupling
- Pulse picking
- Additional 1040 nm output
- Amplitude modulation (EOM and AOM)

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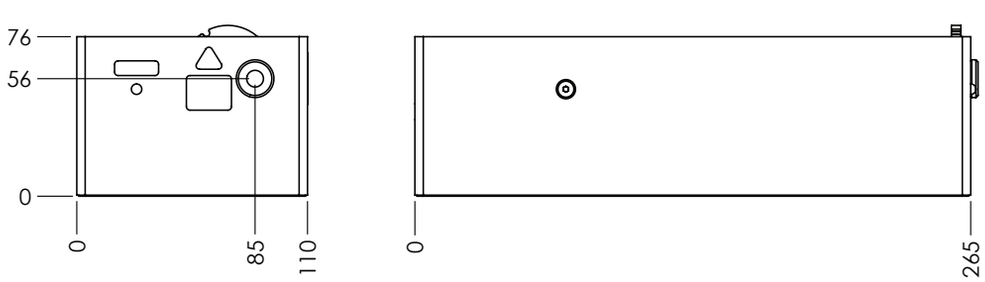
SPECIFICATIONS	YLMO-930
Center Wavelength	930 nm ± 10 nm
Pulse Width (FWHM)	<140 fs, (typ. 120 fs)
Average Power	>1 W
Pulse Energy	>10 nJ
Repetition Rate	100 MHz ± 1 MHz
Polarization	p-pol. in free space (PER: typ. 23 dB)
Beam Diameter	2.0 mm ± 0.5 mm
Beam Divergence	<2 mrad
Beam Quality	M^2 <1.2 (typ. <1.1)
Dispersion Control	0 fs^2 ... - 60. 000 fs^2

Please inquire about your specific repetition rates.

REQUIREMENTS AND DIMENSIONS	
Operating Voltage	110 / 115 / 230 VAC, 50 to 60 Hz
Max. Power Consumption	200 W
Operating Temperature	15 °C - 30 °C
Laser Head	265 x 110 x 76 mm^3 / <5 kg
Control Unit	19”, 2 HU (449 x 496 x 96 mm^3), <20 kg
Umbilical Cord Length	2 m*
Interfaces	USB, Interlock, Trigger-Out

*Please inquire your specific umbilical cord lengths.

TECHNICAL DRAWING

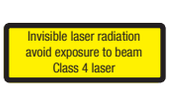


Technical drawing of the YLMO-930 laser head. The laser head comes equipped with detachable 25 mm posts and post clamps. Please contact us for more details and technical drawings of the control unit.

ORDERING INFORMATION

Product Code	YLMO-930

Please call for pricing. Specifications are subject to change without notice. Custom modifications are available, please inquire.



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