

YLMO-930

Femtosecond Fiber Laser for Microscopy and Life Sciences



Menlo Systems' fiber-based femtosecond laser sources integrate latest achievements in fiber technology into easy-to-use products. Menlo Systems' unique figure 9[®] mode locking technology results in reproducible and long-term stable operation. The YLMO series with its all-PM design guarantees excellent stability and low-noise operation. All lasers are maintenance free, user installed and ready to use at the press of a single button.

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KEY SPECIFICATIONS

- Wavelength 930 nm
- Output Power >1W
- Pulse Width <140fs, Typ. <120fs
- Repetition Rate 100 MHz
- Pulse Energy >10 nJ

APPLICATIONS

- Optimized for 2-Photon fluorescence excitation of Green Fluorescent Protein GFP and its variants
- Perfect choice for applications in life sciences where reliability counts
- Engineered for OEM integration with 24/7 operation

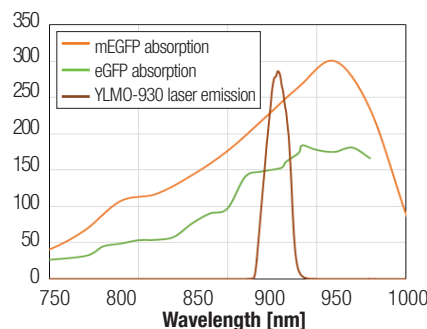
FEATURES

- Compact : 10-50 times smaller than Ti:Sapphire lasers
- Laser Output in less than 60 seconds after turn-on
- Low Amplitude and Phase Noise
- Adjustable Chirp Control (-24000 ...0 fs²)
- Modulation Input (enable/disable): SMA Connector
- Radio Frequency Output for Trigger/Synchronization: SMA Connector
- Excellent Beam Quality (TEM 00, M²<1.2), and Beam Stability
- Air Cooled - no Chiller
- Low Power Consumption
- Quality "Made in Germany"

PERFORMANCE DATA

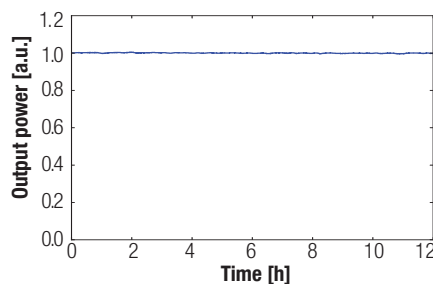
GFP excitation

Output spectrum of YLMO-930, center wavelength of 930 nm, bandwidth 15 nm



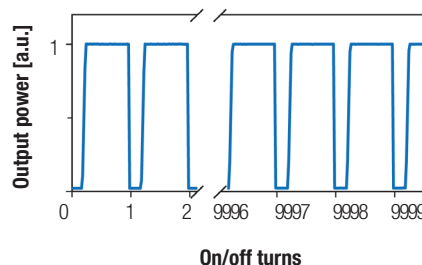
Amplitude noise

YLMO-930 Laser
< 0.5% rms (over >12h in ambient temperature)



Reproducibility

Identical and consistent laser performance



OPTIONS

- **POCKELS CELL**
Fast Modulation
- **MULTIBRANCH Additional Output Port**
>1,5 W @1030 nm
- **VARIO User-Defined Repetition Rate**
Factory-set value selectable in the 50-100 MHz range

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SPECIFICATIONS

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Center Wavelength	930 nm \pm 10 nm
Average Power	>1 W
Pulse Energy	>10 nJ
Bandwidth	>10 nm
Pulse Width	<140 fs, Typ. <120 fs
Repetition Rate	100 MHz \pm 1 MHz (factory set, fixed)*
Optical Output Port	freespace
Polarization	linear, (>50:1)
Beam Diameter	2 mm
Beam Height	56 mm**

*Other repetition rates on request **Beam height adjustable with standard posts

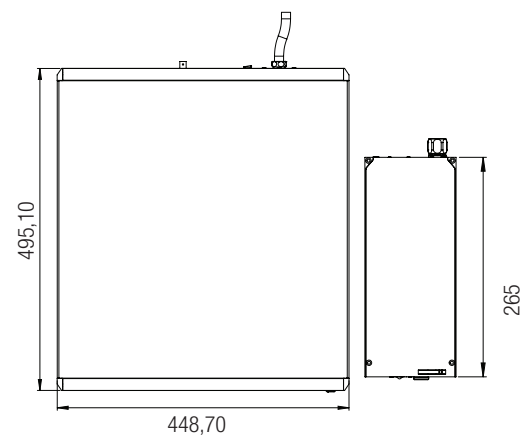
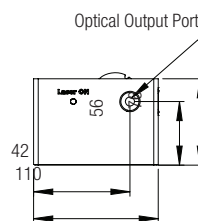
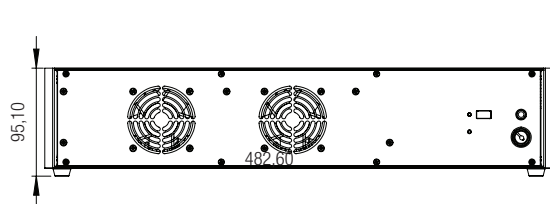
REQUIREMENTS

Operating Voltage	110 / 230 V
Power Consumption	<200 W
Operating Temperature	15 °C - 30 °C
Laser Head Dimensions/Weight	265 x 110 x 76 mm ³ / <5 kg
Control Unit Dimensions/Weight	495 x 483 x 95 mm ³ / <25 kg
Warm-Up Time	<60 s

OPTIONS

Pockels Cell (930 nm port)	
Head Dimensions	265 x 110 x 76 mm ³
Beam Height	42 mm
Modulation Frequency	200 kHz
Response Time	1 μ sec
Extinction Ratio	>27 dB
Transmission	~95%
Multibranch (2nd additional port)	
Head Dimensions	265 x 110 x 76 mm ³
Beam Height	56 mm
Wavelength	1030 nm \pm 10 nm
Average Power	>1.5 W
Pulse Energy	>15 nJ
Pulse Width	<150 fs

TECHNICAL DRAWING



Laser head and control unit interconnected by fixed 2m cable

ORDERING INFORMATION

Product Code	YLMO-930
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Please call for pricing. Specifications are subject to change without notice. Custom modifications are available, please inquire.

MenloSystems



Invisible laser radiation
avoid exposure to beam
Class 4 laser

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