

# ELMO

## Femtosecond Fiber Laser 1560 nm

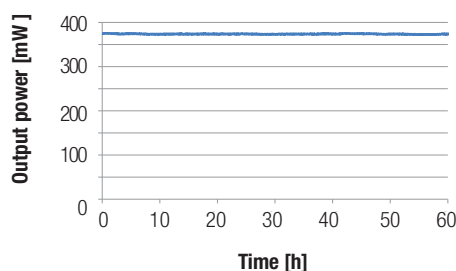


Menlo Systems' fiber-based femtosecond laser sources integrate the latest achievements in fiber technology into easy-to-use products. Menlo Systems' unique figure 9<sup>®</sup> mode locking technology results in reproducible and long-term stable operation. The ELMO with its all-fiber design guarantees excellent stability and low-noise operation. As seed source for fiber amplifiers the oscillator is maintenance free, user installed and ready to use at the press of a single button. In short: An OEM laser engineered for 24/7 operation.

### PERFORMANCE DATA

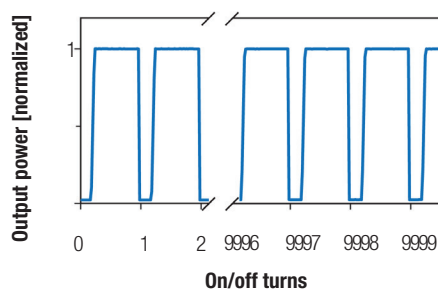
#### Amplitude noise

< 0.5% rms (over 24h)



#### Reproducibility

Identical and consistent laser performance



## MenloSystems

### KEY SPECIFICATIONS

- Wavelength 1560 nm
- Output Power : >330 mW in free space version, up to 200 mW with fiber coupling
- Repetition Rate 50-100 MHz
- Pulse Width down to 45 fs

### APPLICATIONS

- Amplifier Seeding
- THz Generation & THz Physics
- Ultrafast Spectroscopy

### FEATURES

- High Stability
- Low Amplitude and Phase Noise
- All-PM Solution
- Single Mode-Lock State
- Menlo figure 9<sup>®</sup> Technology

### OPTIONS

- **VARIO**  
**User-Defined Repetition Rate**  
Factory-set value selectable in the 50-100 MHz range
- **MULTIBRANCH**  
**Additional Seed Ports**  
Seeding of multiple amplifiers with optional subsequent frequency conversion to cover multiple wavelengths

## Femtosecond Fiber Seed Laser 1560 nm

SPECIFICATIONS	ELMO	ELMO HIGH POWER	ELMO HIGH POWER-FS
Center Wavelength	1560 nm ± 30 nm	1560 nm ± 30 nm	1560 nm ± 30 nm
Average Power	>10 mW	>180 mW	>330 mW
Pulse Width	<150 fs (typ. 100 fs)	<60 fs (typ. 45 fs)	<90 fs (typ. 70 fs)
Output Port	fiber-coupled	fiber-coupled	free space
Polarization	linear, PM fiber	linear, PM fiber	linear, p-polarized
Dispersion Management	dispersion can be factory set to achieve short pulses after 0.5-30m of external fiber	dispersion can be factory set to achieve short pulses after 0.5-30m of external fiber	external patch cord length of 0.5m to external compressor module**
Repetition Rate	100 MHz (50-100 MHz with VARIO)*	100 MHz (50-100 MHz with VARIO)*	100 MHz (50-100 MHz with VARIO)*
2nd Fiber-Coupled Seed Port		yes	yes
2nd High Power Output Port	available with MULTIBRANCH	available with MULTIBRANCH	available with MULTIBRANCH

\*Please inquire for your specific combinations of average power, pulse duration, repetition rate and external fiber length.

\*\*Free space version with additional compressor module, versatile handheld compressor : module can also be mounted in s-polarized orientation. Standard external patch cord length 0.5m

REQUIREMENTS	ELMO	ELMO HIGH POWER	ELMO HIGH POWER-FS
Operating Voltage	12 VDC/1 A***	12 VDC/2 A***	12 VDC/2 A***
Power Consumption	10 VA	20 VA	20 VA
Operating Temperature	15 °C - 35 °C	15 °C - 35 °C	15 °C - 35 °C
Laser Head Dimensions/Weight	195 x 95 x 28 mm <sup>3</sup> / 0.7 kg	195 x 95 x 75 mm <sup>3</sup> /2.5 kg	195 x 95 x 75 mm <sup>3</sup> /2.5 kg
Compressor Dimensions/Weight	-	-	182 x 95 x 32 mm <sup>3</sup> /1 kg
Warm-Up Time	<60 s	<60 s	<60 s

\*\*\* External power supply for 100/115/230 VAC included.

### ORDERING INFORMATION

Product Code	ELMO	ELMO High Power	ELMO High Power-FS
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Please call for pricing. Specifications are subject to change without notice. Custom modifications are available, please inquire.



Invisible laser radiation  
avoid exposure to beam  
Class 3B laser

