

ELMO 780

Femtosecond Fiber Laser 780 nm



MenloSystems

KEY SPECIFICATIONS

- Wavelength 780 nm
- Output Power >140 mW
- Pulse Length <100 fs
- Repetition Rate 100 MHz
- Smallest Footprint - no external control unit
- Detachable SHG unit - no heat dissipation in optical setup
- Additional wavelength 1560 nm fiber coupled with >180 mW and < 70 fs pulse length

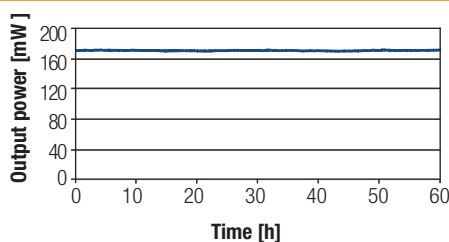
APPLICATIONS

- Amplifier Seeding
- THz Generation & THz Physics
- Ultrafast Spectroscopy
- Multi-Photon Excitation
- 2-Photon Polymerization and 3D Printing

PERFORMANCE DATA

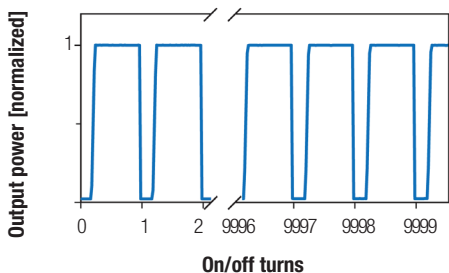
Amplitude noise

< 0.5% rms (over 24h)



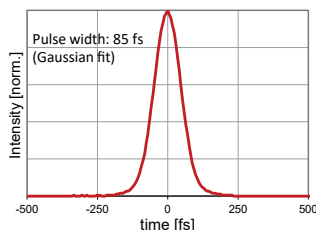
Reproducibility

Identical and consistent laser performance

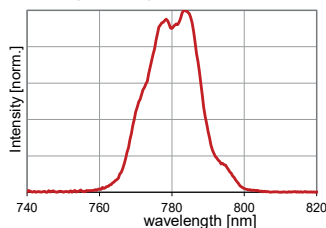


OPTICAL PERFORMANCE

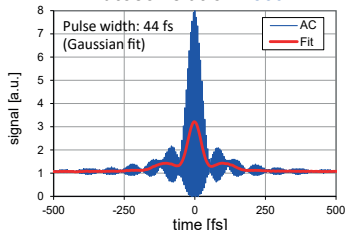
Autocorrelation 780nm



Optical Spectrum 780nm



Autocorrelation 1560nm



Optical Spectrum 1560nm



FEATURES

- Handheld SHG Module
- High Stability
- Low Amplitude and Phase Noise
- All-PM Solution
- Single Mode-Lock State
- figure 9® Technology

OPTIONS

- **VARIO**
User-Defined Repetition Rate
Factory-set value selectable in the 50-100 MHz range
- **MULTIBRANCH**
Additional Seed Ports
Multiple Ports with optional subsequent frequency conversion to cover multiple wavelengths
- **DISPERSION PRECOMPENSATION**
Dispersion precompensation to compensate dispersion of microscope objective and additional optics

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Femtosecond Fiber Laser 780 nm

SPECIFICATIONS

ELM0780

ELM0780 HP

Center Wavelength	780 nm \pm 10 nm	
Average Power	>75 mW (typ. 85 mW)	>140 mW (typ. 165 mW)
Pulse Width	<100 fs (typ. 85 fs)	
Output Port	free space	
Polarization	linear, p-polarized**	
Dispersion Management	pigtailed and versatile SHG module with up to 0.5 m optical fiber supply*	
Repetition Rate	100 MHz (50-100 MHz with VARIO)*	
Output Port at 1560 nm*** Switchable 780 nm/1560 nm	fiber coupled, 1560 nm, >180 mW (typ. 210 mW), <70 fs (typ. 50 fs) after up to 0.8 m detachable polarization maintaining patch cord	
2nd Fiber-Coupled Seed Port	yes	
2nd High Power Output Port	available with MULTIBRANCH	

*Please inquire for your specific combinations of average power, pulse duration and repetition rate. ** the versatile handheld SHG module can also be mounted in s-polarized orientation

*** Output wavelength changeable from 780 nm to 1560 nm with additional patch cord

REQUIREMENTS

Operating Voltage	100/115/230 VAC ,12V external power supply included	
Power Consumption	20 VA	
Operating Temperature	15 °C - 35 °C	
Laser Head Dimensions/Weight	195 x 95 x 75 mm ³ / 2.9 kg	
SHG Dimensions/Weight	195 x 47 x 28 mm ³ / 0.5 kg	182 x 95 x 32 mm ³ / 1.0 kg
On/ Off Control	either via "Elmo Control" software with USB-connection or remote switching unit	
Warm-Up Time	<60 s	

ORDERING INFORMATION

Product Code	ELMO 780	ELMO 780 HIGH POWER
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Please call for pricing. Specifications are subject to change without notice. Custom modifications are available, please inquire.

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Invisible laser radiation
avoid exposure to beam
Class 3B laser

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