

ELMO 780 XHP

Femtosecond Fiber Laser 780 nm

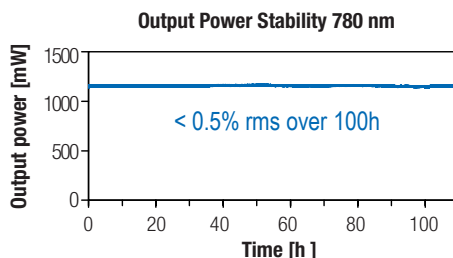


The most recent high power extension of our industry-proven ELMO series: ELMO 780 XHP delivers up to 1.5 W of average output power at 780 nm, with pulse durations down to 100 fs. An additional output port providing up to 1 W at the 1560 nm fundamental is readily available. ELMO 780 XHP comes in an extremely compact design, requiring just a fraction of space occupied by other lasers with comparable performance. Fully integrated fast amplitude modulation and dispersion precompensation make ELMO 780 XHP a perfect fit for multi-photon applications in microscopy or 3D nanoprinting.

PERFORMANCE DATA

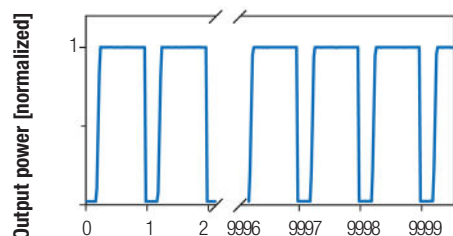
Amplitude noise

< 0.5% rms (over 24h)

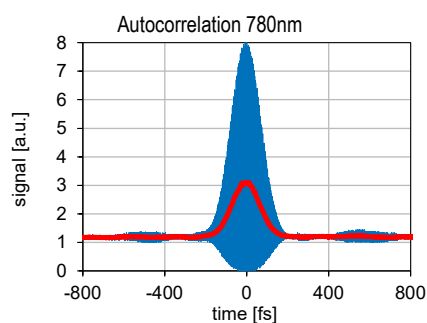
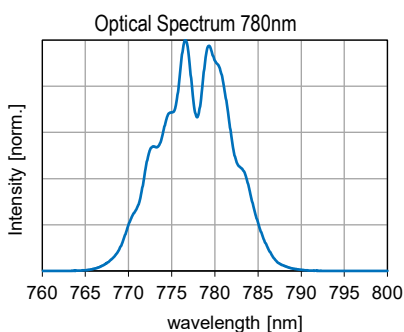


Reproducibility

Identical and consistent laser performance



OPTICAL PERFORMANCE



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KEY SPECIFICATIONS

- Wavelength 780 nm
- Output Power >1 W
- Pulse Length <150 fs
- Repetition Rate 100 MHz
- Fast Light Modulator
- Dispersion Precompensation

APPLICATIONS

- 3D Nano Printing
- Multi-Photon Microscopy
- Ultrafast Spectroscopy
- THz Generation & THz Physics

FEATURES

- Compact Laser Head with integrated AOM and Chirp Control
- Low Amplitude and Phase Noise
- High Stability
- figure 9[®] Technology

OPTIONS

MULTIBRANCH

Additional Seed Ports

Multiple Ports with optional subsequent frequency conversion to cover multiple wavelengths

390 nm Output Port:

With additional SHG box: free space output at 390nm with up to 300mW

ELMO 780 XHP

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Femtosecond Fiber Laser 780 nm

MODEL	ELMO 780 XHP
Contained Modules *	19" control unit, compact laser head
OUTPUT CHARACTERISTICS 780 NM	
Center Wavelength	780 +/- 10 nm
Average Power	> 1 W (typ. 1.2 W)
Pulse Width	< 150 fs (typ. 120 fs)
Repetition Rate	100 MHz +/- 1 MHz
Output Port	free space
Beam Quality	$M^2 < 1.2$
Polarization	linear, s-polarized
Dispersion Precompensation	up to -30.000 fs ²
Fast Amplitude Modulation **	integrated AOM for fast light modulation
OPTIONS	
1560 nm Output Port	free space, up to 1 W
Multiple Output Ports	please inquire for additional oscillator/amplifier output ports
390 nm Output Port	with additional SHG box: free space, up to 300 mW***
REQUIREMENTS	
Warm-Up Time	< 60 s
Operating Temperature	18-30 °C
Storage Temperature	0°C – 50 °C
Operating Voltage	100/115/230 VAC
Power Consumption	< 150 W
Communication Options	software/USB
DIMENSIONS	
Laser Head Dimensions / Weight	240 x 170 x 79.5 mm ³ / < 5 kg
Controller Dimensions / Weight	19", 2 HU (449 x 496 x 96 mm ³) / < 20 kg

* Control unit and laser head permanently interconnected by umbilical cord

** Analog input 0-5 V, rise-/fall-time < 300 ns (typ. 180 ns)

*** >100 mW @390 nm (up to 300 mW), arbitrary splitting ratio between 780 nm and 390 nm on request

ORDERING INFORMATION

Product Code | ELMO 780 XHP

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 4 laser

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Menlo Systems GmbH
T+49 89 189 166 0
sales@menlosystems.com

Menlo Systems US
T+1 303 635 6406
ussales@menlosystems.com

Menlo Systems Japan
T+81 907 409 20 21
jpsales@menlosystems.com

Menlo Systems China
T+86 21 6071 1678
chinasales@menlosystems.com



www.menlosystems.com

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