

## Femtosecond Fiber Lasers



## EFO Femtosecond Fiber Laser

- Ultrashort pulse duration down to 50 fs
- Small footprint
- Turn-key operation
- High stability
- Optional benchtop version



EFO-80/10 Er-doped fiber laser system

## Product overview

Fiber-based femtosecond lasers offer robust and stable operation without the need for constant realignment. The low cost and stability of fiber-based femtosecond lasers mean that even beginner research labs can have a femtosecond pulse source without the need for expensive or complicated equipment. This brings ultrafast research into the realm of undergraduate and other educational environments.

With pulse lengths of 100 fs at 1550 nm fiber femtosecond lasers can also be used as seed sources for femtosecond amplifiers. The 1550 nm wavelength of Er-doped fiber lasers also makes them an attractive tool for ultrahigh-speed optical communications applications.

## Possible application of the EFO fiber lasers:

- Amplifier systems seeding
- Terahertz generation and detection
- Multi-photon microscopy
- Frequency metrology
- Ultrafast spectroscopy
- Semiconductor device characterization
- Supercontinuum generation
- Optical coherence tomography
- Telecommunications

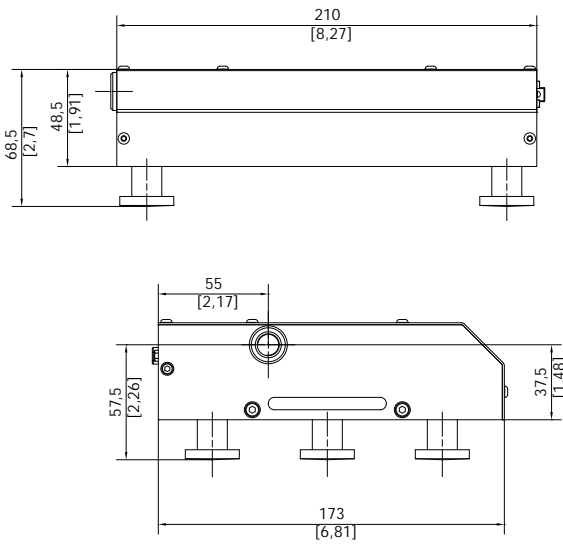
## EFO technical specifications

	EFO-80/10	EFO-T/50	EFOA-T/P
Pulse width (fixed), fs	<80*	250-5000**	100-250**
Wavelength (fixed), nm	1560±10		
Average output power, mW	10*	50	100-250**
Repetition rate (fixed), MHz	70	25-80***	70 (40-80 on request)
Polarization, linear	vertical or horizontal***		horizontal
Spatial mode	TEM <sub>00</sub>		
Fiber output	available upon request		
RF SYNC out	SMA connector (200-300 mV@50 ohm load)		
Mode lock status	SMA connector (3.5/0V) and LED		
Service optical output	FC/APC (~1 mW)		
Laser head dimensions, mm	180x210x50(70)		180x210x70(90)
Power supply unit dimensions, mm	230x200x85		230x200x130

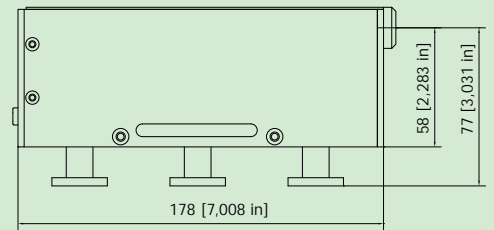
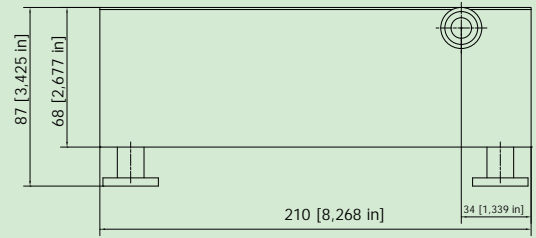
\* - <100 fs @ 20 mW or <50 fs @ 10 mW specs upon request.

\*\* - pulse duration (T) and output power (P for EFOA) should be selected with your request. For the EFOA model, the (lowest available pulse duration)/(highest available average power) relation is equal to 1 (i.e. at 100 fs the highest possible power is 100 mW, at 250 fs - 250 mW etc).

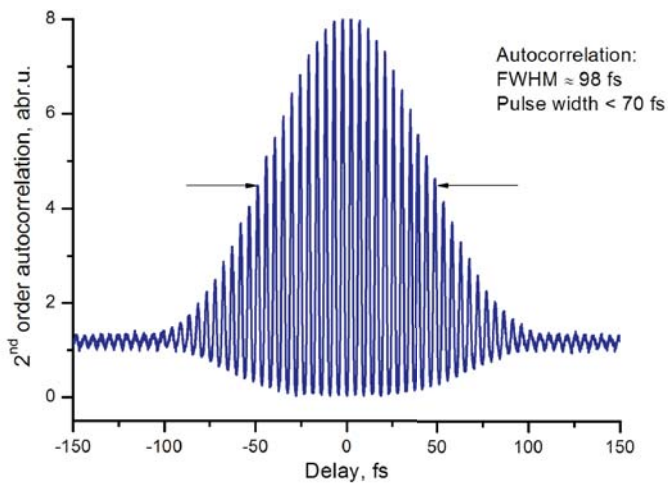
\*\*\* - please specify with your request.



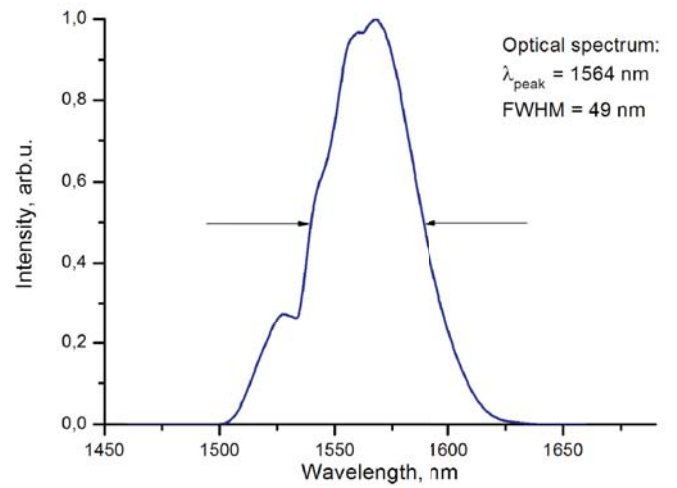
EFO-80/10 (mm [inches])



EFOA (mm [inches])



EFO-80/10 autocorrelation trace



Typical spectrum of the EFO laser system