

# Femtosecond Mode-Locked Fiber Lasers

## 飞秒锁模光纤激光器

### AFML-Series Mode Locked Seeder AFML



The Femtosecond Mode Lock Fiber Laser is a compact, high-reliability laser featuring an all-fiber design (no bulk optics) with a center wavelength of 1030 nm at an average output power of 10 mW, repetition rate of 25 MHz with pulse duration of 600 fs.

飞秒锁模光纤激光器是一种紧凑、高可靠性的激光器，采用全光纤设计（无体光学器件），中心波长为 1030 nm，平均输出功率为 10 mW，重复频率为 25 MHz，脉冲持续时间为 600 fs。

### Applications 应用

- Mode-locked Seeder for High-Power, High Reliability Systems  
用于高功率、高可靠性系统的锁模播种机
- Biomedical and Biological Imaging  
生物医学和生物成像
- Multiphoton Microscopy 多光子显微镜
- Ultrafast Spectroscopy 超快光谱
- Terahertz Imaging 太赫兹成像
- Optical Metrology 光学计量
- Microfabrication and micromachining  
微纳加工和微加工
- Material Characterization 材料表征

## Features 特征

- All-Fiber Design for Greatly Improved Laser Lifetime  
全光纤设计，大大延长激光寿命
- Femtosecond Pulsed Output on PM Fiber  
PM 光纤上的飞秒脉冲输出
- Superior Beam Quality 卓越的光束质量
- Compact Size 紧凑的尺寸
- Optical Tap Output and GUI Control Included  
包括光抽头输出和 GUI 控制

## Specifications 规格

Central Wavelength 中心波长	1030	nm
Repetition Rate 重复率	25	MHz
Pulse Duration 脉冲持续时间	600 to 800	fs
Output Power 输出功率	3 to 10	mW

## Femto-Series High Power Mode Locked Fiber Lasers

### Femto 系列高功率模式锁相光纤激光器



The 920 nm and 1190 nm are made up of two modules: 2RU pump module 440 x 343 x 92 (mm), and the Femtosecond Fiber Laser - 284 x 324 x 116 (mm).

920 nm 和 1190 nm 由两个模块组成：2RU 泵浦模块 440 x 343 x 92 (mm) 和飞秒光纤激光器 - 284 x 324 x 116 (mm)。

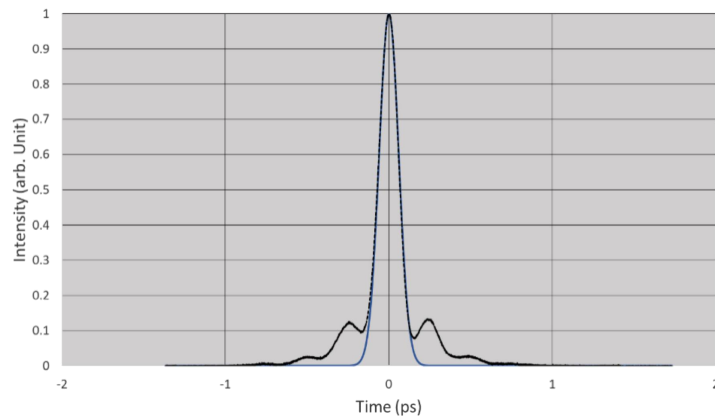
The high-power Mode Locked Femtosecond Fiber Lasers operate at the 920 nm and 1190 nm spectral range - which is traditionally covered by ultrafast Ti:Sapphire lasers and optical parametric oscillators. They generate

linearly polarized nearly transformed-limited pulses with a pulse duration of 200 fs, at a repetition rate of 80 MHz, and an average power of 1 W.

高功率锁模飞秒光纤激光器的工作波长范围为 920 nm 和 1190 nm，传统上由超快 Ti: Sapphire 激光器和光学参数振荡器覆盖。它们产生线性极化近变换限制脉冲，脉冲持续时间为 200 fs，重复频率为 80 MHz，平均功率为 1 W。

Compact and maintenance-free, the lasers are fiber-based, have a very good beam profile, and do not require optical alignment.

激光器结构紧凑，免维护，基于光纤，具有非常好的光束轮廓，并且不需要光学对准。



Autocorrelation Trace and Gaussian fit-TFWHM= 99 fs

自相关迹线和高斯拟合 TFWHM = 99 fs

The Femtosecond Fiber Laser is a natural product extension for MPB, with its extensive suite of Visible Fiber Lasers developed for the Microscopy industry, and its existing line of Picosecond Pulsed Mode Locked Fiber Lasers.

飞秒光纤激光器是 MPB 的天然产品延伸，其为显微镜行业开发的大量可见光纤激光器套件，以及其现有的皮秒脉冲模式锁定光纤激光器系列。

## Features 特征

- 920 nm and 1190 nm MLFL 920 nm 和 1190 nm MLFL
- Emits sub 200-femtosecond optical pulses  
发射低于 200 飞秒的光脉冲
- Repetition rate of 80 MHz or custom  
重复频率为 80 MHz 或自定义
- Average output power of 1 W at the central wavelengths of 920 nm and 1190 nm  
在 920 nm 和 1190 nm 的中心波长下，平均输出功率为 1 W

## Applications 应用

- Multi-photon Microscopy 多光子显微镜
- Ultra-fast Spectroscopy 超快光谱
- Terahertz Imaging 太赫兹成像
- Can be used as a seed source for Titanium-Sapphire systems  
可用作钛-蓝宝石系统的种子源

## Specifications 规格

	MLFL-920-femto 飞秒	MLFL-920-MLFL-1190-femto 飞秒	MLFL-1190- 飞秒
中心波长	920		1190 nm
重复率		80	MHz
脉冲持续时间	100	200	fs
平均输出功率		≥ 1	W
规格宽度		10	nm
光束直径		1	mm
Polarization		Linear, 99 线性, 99	%