MENDOCINO

1030 or 1064 nm Femtosecond Fiber Laser

Applications

- Biomedical instrumentation
- Seed source for high power lasers
- Optical high speed sampling
- Terahertz radiation
- Materials characterization
- Optical metrology

Features

- Average power up to 3 mW
- Central Wavelength of 1030 or 1064 nm
- Pulse width compressible to 200 - 400 fs
- Convenient fiber pigtail output
- Turnkey benchtop platform
- Integral optical monitor port

The benchtop (FPL-0) series is the perfect, economical, short pulse optical source for a variety of test and measurement applications. Along with a portable design, the series offers user-friendly front panel control knobs for adjustment of the output power. Different synchronization signals are available through a front panel RF output and an optical monitor port.

The 1 µm low power femtosecond fiber laser is a passively mode-locked fiber laser that provides a stable pulse output at either 1030 or 1064 nm. The laser utilizes the proprietary Mendocino saturable absorber technology, which has been developed and perfected over a twenty-year period, to deliver reproducible mode-locking at turn-on with excellent stability and reliability.

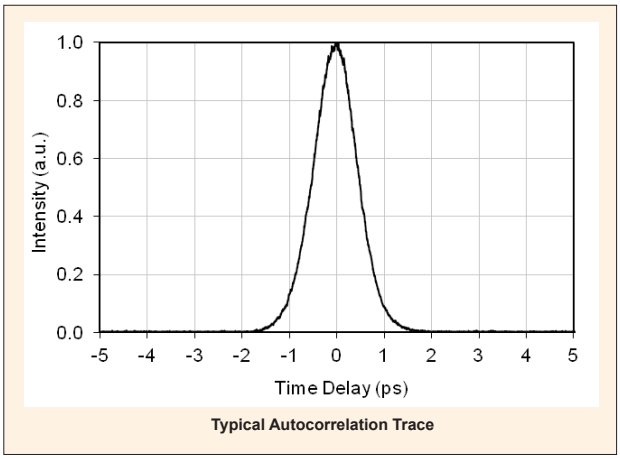
The laser features a convenient fiber pigtail output with power levels up to 3 mW and optical pulses that are compressible to 200 – 400 fs for the standard version, or in the range of 5 – 20 ps for the longer pulse width version. The repetition rate can be specified as 27, 55, or 100 MHz.

If the performance parameters do not quite fit your application requirements, please contact us at sales@calmarlaser.com to discuss a customized solution.

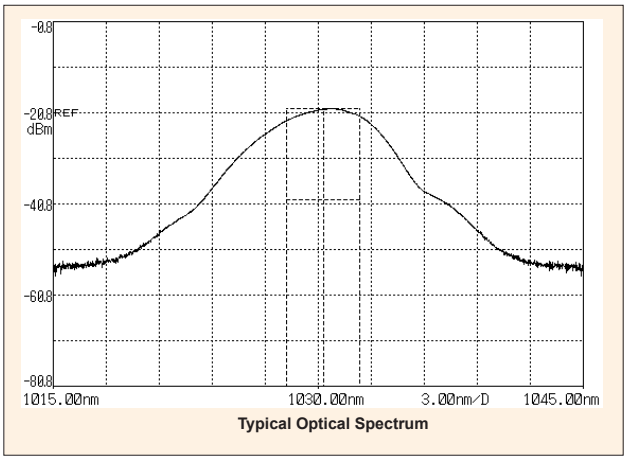
Technical Specifications[1]

Model Number	FPL-02UFF
OPTICAL	
Central Wavelength[2] (nm)	1030 or 1064
Pulse Width[3] (ps)	~ 1 - 2 (compressible to 0.2 - 0.4)
Average Power[4] (mW)	1 - 3
Spectral Width (FWHM, nm)	2 - 5
Repitition Rate[5] (MHz)	27, 55, 100
Power Stability over 8 hours[6] (%, RMS)	< 1.0
Beam Quality, M^2	< 1.1
Polarization Extinction Ratio (dB)	> 20
Output/Termination	PM-980 or HI-1060 fiber pigtail with FC/APC connector, key to slow axis
ELECTRICAL	
Electrical Synchronization (V)	~ 0.5, SMA connector
Supply Voltage (VAC)	85 - 264 autoranging
Supply Frequency (Hz)	47 - 63 autoranging
MECHANICAL	
Operating Temperature (°C)	15 - 30
Dimensions (cm)	34.9(W) x 43.7(D) x 10(H)
Weight (kg)	~ 6

1. Due to our continuous improvement philosophy, all product specifications are subject to change without prior notice. Please contact sales@calmarlaser.com for customized specifications.
2. Wavelength needs to be specified at the time of purchase.
3. A $sech^2$ pulse shape (deconvolution factor of 0.65) is used to determine the pulse width from the second harmonic autocorrelation trace.
4. From output port A, a monitor signal (~ 0.1 mW) is available from output port B.
5. Repetition rate needs to be specified at the time of purchase. For other repetition rates, please contact sales@calmarlaser.com.
6. Requires an ambient temperature control of ± 1.0ºC.



Typical Autocorrelation Trace



Typical Optical Spectrum

CALMAR LASER

CE

RoHS COMPLIANT