

1550 nm High Power Femtosecond Fiber Laser



Applications

- Telecommunication components characterization
- Optical high speed sampling
- Terahertz radiation
- Optical switching
- Materials characterization
- Optical metrology

Features

- Average power up to 350 mW
- Central Wavelength 1550 nm
- Pulse width < 100 fs
- Near transform-limited output
- Convenient fiber pigtail output
- Turnkey benchtop platform

The benchtop (FPL-0) series is the perfect 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 and pulse width. Different synchronization signals are available through a front panel RF output and an optical monitor signal.

The 1550 C-band high power femtosecond fiber laser is a passively mode-locked fiber laser that provides a stable short pulse output at 1550 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. It features a convenient fiber pigtail output with power levels up to greater than 350 mW and an optical pulse of less than 100 fs.

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

Technical Specifications¹

Model Number	FPL-04CFF	
OPTICAL	Port A (Main)	Port B (Monitor)
Central Wavelength (nm)	1550	
Pulse Width ² (ps)	< 0.1	< 0.5
Average Power (mW)	up to 350	~ 0.1
Repetition Rate ³ (MHz)	100	
Power Stability over 8 hours ⁴ (% , RMS)	< 1.0	
Beam Quality, M ²	< 1.1	
Polarization Extinction Ratio (dB)	> 20	N/A
Output	PM 1550	Single mode SMF-28
Termination	Fiber pigtail with FC/APC connector	N/A
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. A sech² pulse shape (deconvolution factor of 0.65) is used to determine the pulse width from the second harmonic autocorrelation trace.

3. For other repetition rates, please contact sales@calmarlaser.com.

4. Requires an ambient temperature control of ± 1.0°C.

