

780 nm Femtosecond Fiber Laser With Fiber Output



Applications

- Biophotonics
- Terahertz radiation
- Materials characterization
- Optical metrology
- Multiphoton imaging microscopy

Features

- Wavelength selectable from 775 to 785 nm
- Average power 4 - 50 mW
- Pulse widths ~ 1.5 ps
- Linearly polarized output
- Minimal pulse pedestal
- Low timing jitter
- RF synchronization output
- Compact and ruggedized OEM package available
- High stability

The 780 nm femtosecond fiber laser is a second harmonic generation (SHG) product of Calmar's passively mode-locked fiber laser in C-band. For fiber output 780 nm laser, the pulse width is 1.5 ps instead of 0.1 ps due to dispersion. The average power can up to 50 mW.

It has excellent stability and reliability. The timing jitter is as low as 60 fs. The repetition rate can be specified from 10 to 100 MHz with a polarization-maintaining (PM) output. An RF synchronization output is provided as a trigger signal.

Calmar's FPL operation is highly stable, which significantly differentiates us from our competitors. Whenever our laser is turned on, it always starts in the same operation state.

Mendocino 780 nm Technical Specifications

Specifications	Fiber Coupled, Fiber Output
Central Wavelength (nm)	775 - 785 (selectable)
Average Power (mW)	4 - 50
Pulse Width (ps) *	~ 1.5
Repetition Rate (MHz)	10 - 100
Spectral Width (nm)	~ 8
Time Jitter (fs)	~ 60 (carrier offset 100 Hz - 1 MHz)
Optical Output	Fiber coupled, ~ 50 cm fiber pigtail with FC/APC or FC/UPC connector
Operating Temp (°C)	15 - 35
Operating Voltage	Desktop: 85 - 264 VAC Module: 5 VDC
Dimensions (cm)	Desktop: 34(w) x 40(d) x 9(h) Module: 18.4(w) x 12.7(d) x 6.5(h)

* A $sech^2$ pulse shape (convolution factor of 0.65) is used to determine the pulse width for the second harmonic autocorrelation trace.

Due to our continuous improvement program, specifications are subject to change without notice.

