

# 1 $\mu$ m High Power Femtosecond Pulsed Laser

Calmar's FPL-03U is a 1.06  $\mu$ m high power femtosecond fiber laser. It is a passively mode-locked femtosecond fiber laser featuring up to 400mW average output power and wide range of pulse widths from 0.1 to 10 ps.

FPL-03UFF generates optical pulses at fixed wavelengths while FPL-03UFT operates at a widely tunable range throughout 1030 ~ 1070 nm.

FPL-03U is simple and intuitive to operate. The operation is turn-key and requires neither external RF source nor warm-up.

The optional synchronization output frequency can be the fundamental or harmonic of the repetition rate of the laser.

FPL-03U is a versatile optical source, with combined advantage of high power and ease-of use. It is ideal for micro machining, material processing, biomedical instrumentation, terahertz imaging, semiconductor testing and metrology.



## Features

- High average and peak power
- Pulse widths 0.1 ~ 200 ps selectable
- Wavelengths 1030–1070 nm tunable
- Polarization maintaining
- No warm-up time required
- No external RF source required

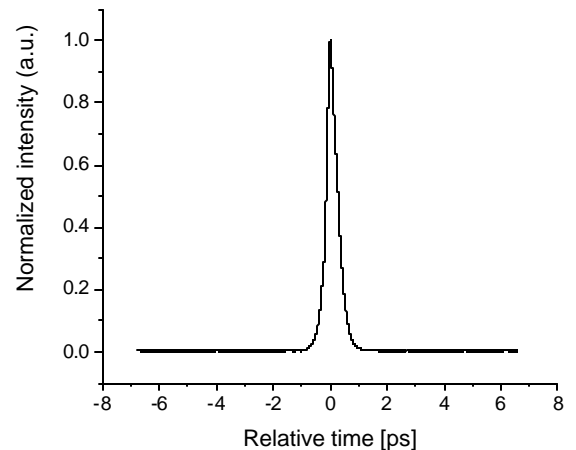
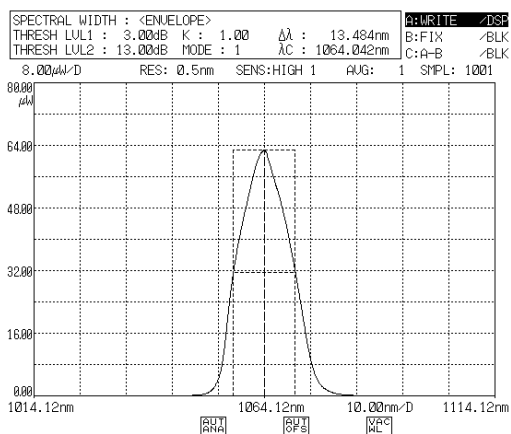
## Optional Upgrades

- Repetition rate stabilizer
- Tunable repetition rate
- Pulse compression
- Phase locking to external RF clock with ultra low jitter
- Synchronization output with customized bandwidth

## Technical Specifications

Model Number	FPL-03UFF0	FPL-03UFF1	FPL-03UFT0	FPL-03UFT1
Pulse width (ps)	>6	0.1 ~ 1 (selectable)	> 6	0.1 ~1 (selectable)
Wavelength (nm)	1030 ~ 1070 (selectable)		1040 ~ 1065 (tunable) 1030 ~ 1070 (typical)	
Repetition Rate (MHz)	40 (other repetition rate within 20~100 MHz available)			
Average Output Power (mW)	400 (typical)	> 200	400 (typical)	> 200
Timing Jitter (fs)	<100 (Carrier offset 100 Hz ~ 1 MHz)			
Spectral Width (nm)	30 ~ 40			
Termination	Collimated beam in free space			
Polarization Extinction Ratio (dB)	> 20			
Dimension (cm)	34(w) x 42(d) x 9(h)			
Operating Temp (°C)	5 - 40			
Operating Voltage (VAC)	85 - 264			

Specifications are subject to change without notice. 10/20/2006



Pulsewidth : 270 fs (FWHM)



Safety information: the product complies with FDA radiation performance standards 21 CFR 1040.10 and 1040.11