

## High Power Femtosecond Fiber Laser Bench Top



### Applications

- Seeding of ultra high output power lasers
- Biomedical instrumentation
- Terahertz radiation
- Nonlinear optical studies
- Micro machining and material processing

### Features

- Average output power up to 5 W
- Wavelength at 1.0  $\mu\text{m}$  or 1.55  $\mu\text{m}$
- Pulse width 0.3 or 0.5 ps
- Linearly polarized output
- Minimal pulse pedestal
- Low timing jitter
- RF synchronization output
- Turnkey operation

The high power femtosecond fiber laser bench top (FPL-05) is a passively mode-locked fiber laser that utilizes a saturable absorber to deliver excellent stability and reliability with turnkey operation. Along with a portable design, this FPL series offers user-friendly front panel control knobs for flexible adjustment of wavelength, pulse width and output power. The wavelength can be selected at 1.0  $\mu\text{m}$  or 1.55  $\mu\text{m}$ . The pulse width can be 0.3 or 0.5 ps with timing jitter as low as 60 fs. The repetition rate can be specified from 10 to 50 MHz with output power levels up to 5 W. An RF synchronization output is provided as a trigger signal.

# FEMTOSECOND FIBER LASER

## Technical Specifications

Model Number		FPL-05C	FPL-05U
Pulse Width (ps)*		0.3	0.5
Central Wavelength (μm)		1.55	1.0
Repetition Rate (MHz)**		20	
Average Power (W)		>1	1 ~ 5 (selectable)
Timing Jitter (fs)		60	
Output Beam (mm)		Free space, diameter 3 (typical), $M^2 < 1.2$	
Operating Temp (°C)		10 ~ 35	
Operating Voltage (VAC)		85 ~ 264	
Dimension (cm)	Fiber Laser	48(w) x 42(d) x 9(h)	
	Compressor	48(w) x 42(d) x 9(h)	

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

\*\* Other repetition rates within 10 to 50 MHz are available; Specifications may change at different repetition rates.

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

