

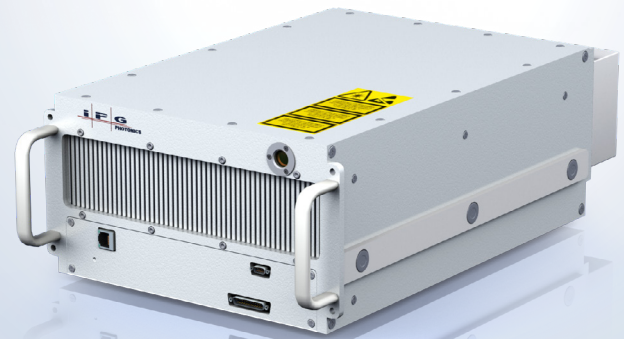


# YLPF-FlexO-0.05-50-0.5

## Femtosecond Fiber Laser Oscillator

NEW PRODUCT

50 fs, 50 nJ, 560 mW



### Applications

- ▶ Scientific and Advanced Applications
- ▶ 3D Micro Printing
- ▶ Bio-imaging and Multiphoton Microscopy
- ▶ Terahertz Imaging
- ▶ Analytical Chemistry
- ▶ Pumping OPOs
- ▶ Seeding Amplifiers



### Features

- ▶ Pulse Duration from 50 fs
- ▶ Output Power up to 560 mW @ 1030 nm
- ▶ Built-in Phase Modulator: Transform-limited or Shaped Pulse Forms on Demand
- ▶ Fiber Laser Architecture: Rugged Industrial Design, High Reliability and Long Lifetime
- ▶ Selectable Repetition Rates up to 11 MHz
- ▶ Selectable Gated Pulse Sequences/Bursts
- ▶ Environmentally Sealed Option
- ▶ Harmonic Generator and OPO Extension Options
- ▶ OEM or End-user Packages Options

IPG Photonics' NEW YLPF-FlexO Series of femtosecond oscillators offer the user unprecedented flexibility in choosing parameters optimal for the application. The YLPF-FlexO-0.05-50-0.5 laser provides ultrashort 50 fs, 50 nJ pulses across a broad range of selectable repetition rates up to 11 MHz. Arbitrary pulse sequences and bursts within the 11 MHz train can be selected by the user. The YLPF-FlexO lasers incorporate IPG's proprietary pulse shaping technology which provides the ability to choose a desired temporal pulse shape from the shortest near-transform limited pulse to a variety pre-selected shapes. The pulse shaping technology can be incorporated in a closed loop setup responding in real time to input from external diagnostics. The ability to select the optimal pulse shape and sequence combined with IPG's highly reliable fiber architecture makes these femtosecond lasers the perfect master oscillator source for a wide range of scientific, biomedical and advanced applications such as pumping OPOs, bio-imaging, multiphoton microscopy, 3D-microprinting, terahertz imaging, seeding amplifiers and many others. Optional extensions such as harmonic generators and OPOs as well as higher output pulse energies and powers are planned.

# YLPF-FlexO-0.05-50-0.5

## Femtosecond Fiber Laser Oscillator

### Optical Characteristics

Mode of Operation	Pulsed
Central Wavelength, nm	1030
Max. Average Power, mW	280, 560
Pulse Duration, fs	50 fs
Pulse Energy, nJ	25, 50
Repetition Rate, MHz	Single Pulse to 11 MHz
Polarization	Linear (100:1)
Beam Mode Quality, M <sup>2</sup>	<1.3
Beam Diameter, mm	5
Warm-up Time, min	1

### General Characteristics

Type of Output	Free Space Aperture
Unit Dimensions (W × D × H), mm	288 × 442 × 148
Unit Weight, kg	10
Supply Voltage, AC	110-240, 50-60 Hz

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MAX. AVERAGE OUTPUT POWER: 1.2 W  
 MAX. PEAK OUTPUT POWER: 2 MW  
 PULSE DURATION: 50 fs  
 PULSE REPETITION RATE: ≤ 11 MHz  
 WAVELENGTH RANGE: 900-1200 nm

DANGER - INVISIBLE LASER  
 RADIATION AVOID EYE OR SKIN  
 EXPOSURE TO DIRECT OR  
 SCATTERED RADIATION  
 CLASS 4 LASER PRODUCT  
 IEC 60825-1:2014

**The Power to Transform®**