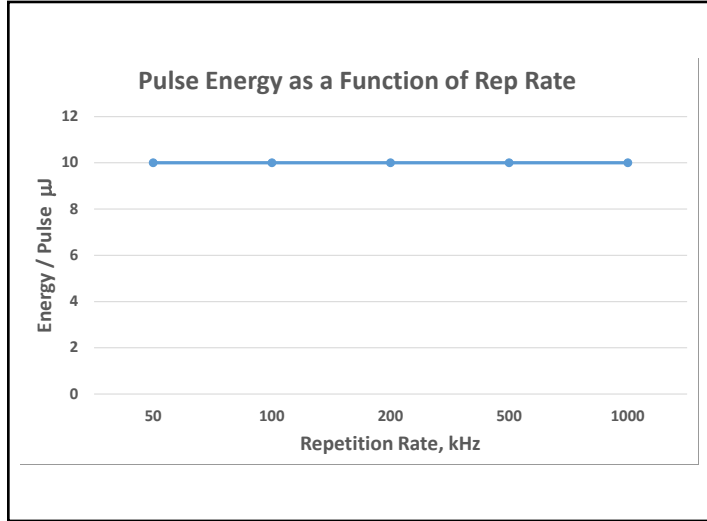




# YLPF-10-500-10-R

## Ytterbium Femtosecond Fiber Laser

**NEW PRODUCT**



### Features

- ▶ Wavelength 1030 nm
- ▶ Pulse Duration 500 fs
- ▶ Pulse Energy up to 10 µJ
- ▶ Repetition Rate 1 MHz
- ▶ High Peak Power up to 100 MW
- ▶ Low-maintenance
- ▶ Output Power >10 W
- ▶ Rugged Design

### Applications

- ▶ Life Sciences
- ▶ Ophthalmology
- ▶ Medical Device Manufacturing
- ▶ Microdrilling
- ▶ Fine Tube Cutting
- ▶ Thin-film Ablation
- ▶ LED Dicing
- ▶ Solar Cell Structuring
- ▶ Photomask Cutting and Repairing
- ▶ Specialty Marking

**IPG Photonics' NEW YLPF Series** femtosecond fiber lasers provide high peak power with max average output power of 10 W, short pulse duration of <500 fs at operational repetition rate range of 20-1000 kHz. The all fiber format allows for the adjustment of peak power and/or pulse repetition rate without affecting any of the output beam parameters. IPG's novel fiber laser is much more efficient and compact than conventional lasers now on the market. It is ideal for applications in ophthalmology, life sciences and precision micromachining.

The excellent beam quality, ultrashort pulse duration and high pulse energy combine to provide peak power densities suitable for micromachining virtually any material: metal, glass, ceramic, silicon, plastics. The ultrashort pulse duration results in a very small heat affected zone. Higher output powers are planned.

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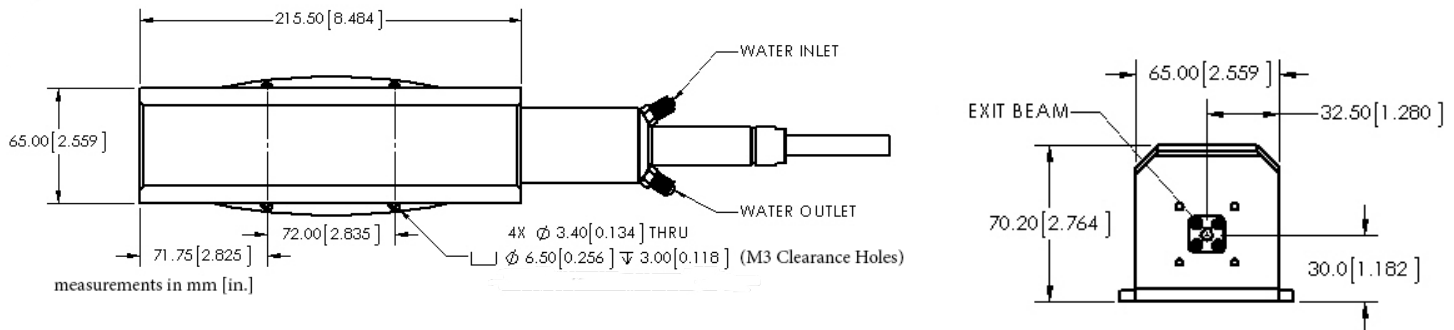
## Ytterbium Femtosecond Fiber Laser

### Optical Characteristics

Wavelength, nm	1030
Average Power, W	10
Pulse Energy, $\mu$ J	10
Pulse Duration, fs	<500
Peak Power, MW	up to 100
Repetition Rate, kHz	50-1000
Beam Quality, $M^2$	<1.4 (1.2 Typ.)

### General Characteristics

Control Unit Dimensions (W x D x H), mm	448 x 418 x 133
Optical Head Dimensions (W x D x H), mm	370 x 82 x 60
Cooling	Air-cooled
Supply Voltage, VAC	100-240, 50/60 Hz
Power Consumption, W	150



Water-cooled Head

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MAX. CONTINUOUS OUTPUT POWER: 20 W  
 PEAK OUTPUT POWER: 200 MW  
 PULSE DURATION: 300-600 fs  
 PULSE REPETITION RATE: 50-1000 kHz  
 WAVELENGTH RANGE: 1000-1200 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®**