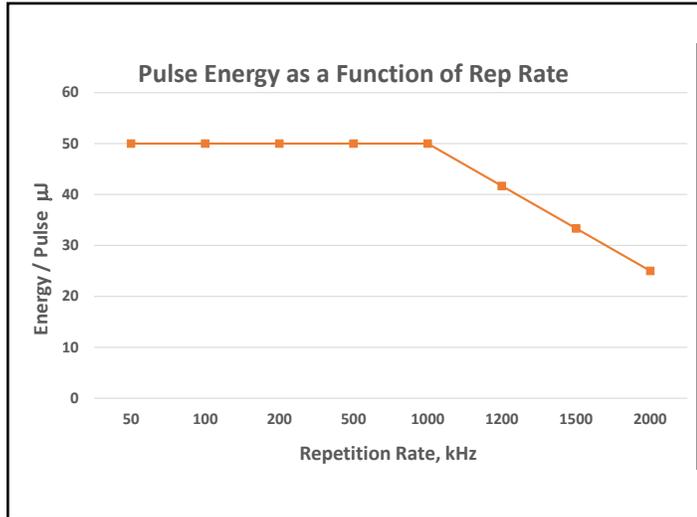




YLPF-50-500-50-R

Ytterbium Femtosecond Fiber Laser

PRELIMINARY



50 W, <500 fs



Applications

- ▶ Medical Device Manufacturing
- ▶ Microdrilling
- ▶ Fine Tube Cutting
- ▶ Thin-film Ablation
- ▶ LED Dicing
- ▶ Solar Cell Structuring
- ▶ Photomask Cutting



Features

- ▶ Wavelength 1030 nm
- ▶ Pulse Energy up to 50 μ J
- ▶ High Peak Power up to 100 MW
- ▶ Output Power >50 W
- ▶ Pulse Duration <500 fs
- ▶ Repetition Rate up to 2 MHz
- ▶ Low-maintenance
- ▶ Rugged Design

IPG Photonics' NEW YLPF Series femtosecond fiber lasers provide high peak power with scalable average output power of 50 W, short pulse duration of 500 fs at full operational repetition rate range of 50-2000 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 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.

YLPF-50-500-50-R

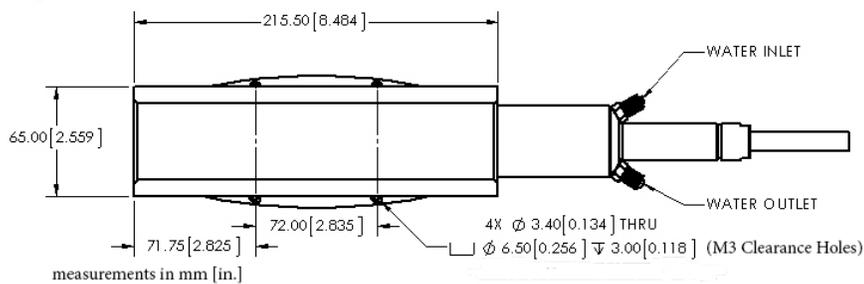
Ytterbium Femtosecond Fiber Laser

Optical Characteristics

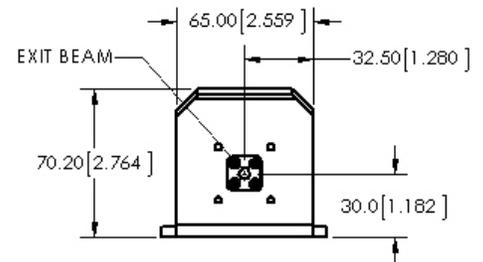
Wavelength, nm	1030
Max. Average Power, W	50
Pulse Energy, μJ	50
Pulse Duration, fs	<500
Peak Power, MW	up to 100
Repetition Rate, kHz	50-2000
Beam Quality, M^2	<1.4 (1.2 Typ.)

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	<300



Water-cooled Head



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MAX. CONTINUOUS OUTPUT POWER: 100 W
 PEAK OUTPUT POWER: 100 MW
 PULSE DURATION: <500 fs
 PULSE REPETITION RATE: 50-2000 kHz
 WAVELENGTH RANGE: 900-1200 nm

**ANGER - 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®