



GLPF Series

Femtosecond Green Fiber Laser

PRELIMINARY



Applications

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



Features

- ▶ 515 nm
- ▶ Pulse Energy up to 10 μ J
- ▶ High Peak Power up to 10 mJ
- ▶ Output Power >20 W
- ▶ Pulse Duration 400-600 fs
- ▶ Repetition Rate up to 2 MHz
- ▶ Low-maintenance
- ▶ Rugged Design

IPG Photonics' NEW GLPF Series femtosecond green fiber lasers provide high peak power with scalable average output power of 20 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 life sciences and precision micromachining.

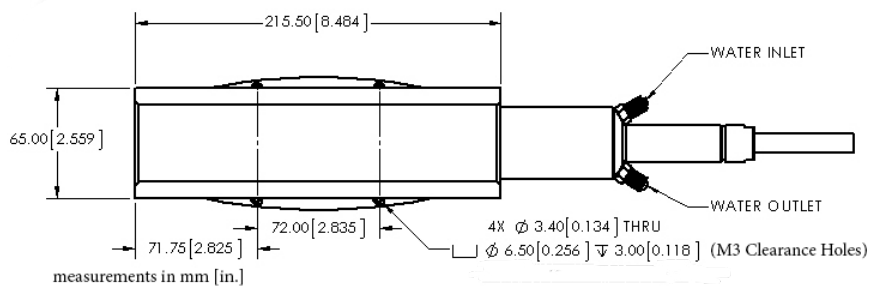
The excellent beam quality, ultrashort pulse duration and high pulse energy combine to provide peak power densities suitable for micromachining virtually any material: metal, glass, ceramic, silicon, plastics. The ultrashort pulse duration results in negligible heat affected zone. Higher output powers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

GLPF Series

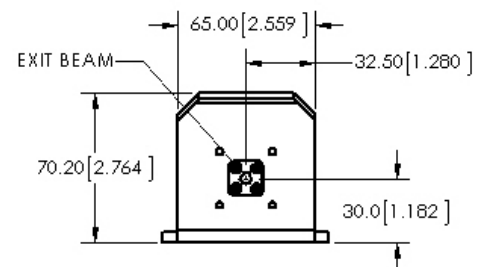
Femtosecond Green Fiber Laser

Optical Characteristics	GLPF-2.5-500-5-R	GLPF-5-500-10-R	GLPF-10-500-20-R
Wavelength, nm	515		
Average Power, W	5	10	20
Pulse Energy, μJ	2.5	5	10
Pulse Duration, fs	400-600		
Peak Power, MW	up to 20		
Repetition Rate, kHz	50-2000		
Beam Quality, M^2	<1.2		

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	65 x 70 x 255		
Supply Voltage, VAC	100-240, 50/60 Hz		
Typical Power Consumption, W	100	150	300
Cooling	Water-cooled		



Water-cooled Head



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MAX. AVERAGE OUTPUT POWER: 40 W
 MAX. PEAK OUTPUT POWER: 40 MW
 PULSE DURATION: 350-650 fs
 PULSE REPETITION RATE: 20-2000 kHz
 WAVELENGTH RANGE: 500-1100 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®