

GLPF/GLPP Series

Green Ultrafast Fiber Lasers

Compact
Lightweight Head



FEATURES

- ▶ Wavelength 515 nm
- ▶ Output Power up to 50 W
- ▶ Pulse Duration 250 fs – 3 ps
- ▶ Pulse Energy up to 100 μ J
- ▶ Repetition Rate up to 5.5 MHz
- ▶ Up to 5 m Remote Head Delivery Fiber
- ▶ Easy Integration
- ▶ Ultra-compact Lightweight Head
- ▶ Cold and Warm Start in Minutes
- ▶ Low Maintenance



APPLICATIONS

- ▶ Precision Micromachining
- ▶ Medical Device Manufacturing
- ▶ Solar Cell Structuring
- ▶ Photomask Cutting
- ▶ Microdrilling
- ▶ Fine Tube Cutting
- ▶ Thin Metal Scribing
- ▶ SiC Wafer Processing
- ▶ Polymer Ablation and Cutting
- ▶ Glass, Silicon, Ceramics, Polymer and Composite Material Processing



GLPF and GLPP green ultrashort lasers provide high peak power with scalable average output power up to 50 W and pulse durations in the range of 250 fs to 3 ps in 50-5500 kHz repetition rate range. IPG novel fiber lasers are much more efficient, compact and easy to integrate into OEM equipment than conventional lasers now on the market. 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. Custom models can be designed within specified maximum power, maximum pulse energy and pulse durations in 250 fs to 5 ps range.

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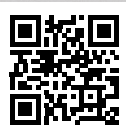
Green Ultrafast Fiber Lasers

Optical Characteristics*	GLPF-10-300-20	GLPF-100-750-25	GLPF-50-750-50	GLPP-100-1-25	GLPP-50-1-50
Wavelength, nm	515				
Max. Average Power, W	20	25	50	25	50
Pulse Energy, μ J	10	100	50	100	50
Pulse Duration, ps	0.3	0.75	0.75	1	1
Repetition Rate, kHz	50-2000	200-2000			
Beam Quality, M^2	<1.4 (1.2 typ.)				

* This table introduces typical models. Models with custom specifications are available on request.

General Characteristics

Control Unit Dimensions (W × D × H), mm	448 × 580 × 133
Optical Head Dimensions (W × D × H), mm	160 × 337 × 100
Cooling	Water
Supply Voltage, VAC	Single-phase 50-60 Hz 100-240
Optical Head Weight, kg	5.5
Power Consumption, W	<1200



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MAX. AVERAGE OUTPUT POWER: 100 W
 MAX. PEAK OUTPUT POWER: 100 MW
 PULSE DURATION: 200 fs-5 ps
 PULSE REPETITION RATE: 50-2000 kHz
 WAVELENGTH RANGE: 500-1200 nm

⚠ DANGER - INVISIBLE LASER
 RADIATION AVOID EYE OR SKIN
 EXPOSURE TO DIRECT OR
 SCATTERED RADIATION
 CLASS 4 LASER PRODUCT

IEC 60825-1:2014

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