

# YLPF/YLPP up to 300 W

## High Power Ultrafast Lasers

Compact Head  
Up to 300 W Output Power



### FEATURES

- ▶ Wavelength 1030 nm
- ▶ Output Power up to 300 W
- ▶ Pulse Duration 600 fs – 3 ps
- ▶ Pulse Energy up to 20  $\mu$ J
- ▶ Burst Energy up to 200  $\mu$ J
- ▶ Repetition Rate 1 – 44 MHz
- ▶ Up to 5 m Remote Head Delivery Fiber
- ▶ Cold and Warm Start in Minutes
- ▶ Low Maintenance
- ▶ Rugged Design



### APPLICATIONS

- ▶ Precision Micromachining
- ▶ Medical Device Manufacturing
- ▶ Microdrilling
- ▶ Thin-film Ablation
- ▶ Photomask Cutting
- ▶ LED Dicing
- ▶ Solar Cell Structuring
- ▶ Fine Tube Cutting
- ▶ Battery Foil Cutting
- ▶ Glass, Silicon, Ceramics, Polymer and Composite Material Processing



IPG **High Power YLPF/YLPP** ultrafast lasers provide high peak power with scalable average output power up to 300 W and pulse durations in the range of 600 fs to 3 ps in 1000-44000 kHz repetition rate range. IPG novel fiber laser is much more efficient, compact and easy to integrate into OEM equipment 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.

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## High Power Ultrafast Lasers

Optical Characteristics*	YLPF-20-750-200	YLPP-20-1-200	YLPP-20-1-300**
Wavelength, nm	1030		
Max. Average Power, W	200	300	
Pulse Energy, $\mu$ J	20		
Burst Mode Energy, $\mu$ J	up to 200		
Pulse Duration, ps	0.75	1	
Repetition Rate, kHz	1000 - 440000		
Beam Quality, $M^2$	<1.6 (1.4 typ.)		

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

\*\* Preliminary specifications

### General Characteristics

Control Unit Dimensions (W x D x H), mm	448 x 750 x 133
Optical Head Dimensions (W x D x H), mm	160 x 337 x 100
Cooling	Water
Supply Voltage, VAC	Single-phase 50-60 Hz, 100-240
Optical Head Weight, kg	5.5
Power Consumption, W	<1200, <1000 typ.

sales.us@ipgphotonics.com  
[www.ipgphotonics.com](http://www.ipgphotonics.com)

MAX. CONTINUOUS OUTPUT POWER: 600 W  
 PEAK OUTPUT POWER: 60 MW  
 PULSE DURATION: 600 fs-5 ps  
 PULSE REPETITION RATE: 1-44 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

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