

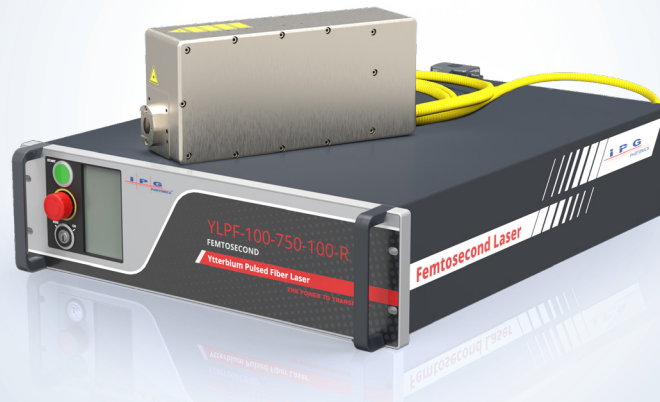


# YLPF-100-750-100-R

## Ytterbium Femtosecond Hybrid Laser

NEW PRODUCT

Up to 100 W, 600 -900 fs



### Applications

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



### Features

- ▶ Wavelength 1030 nm
- ▶ Output Power up to 100 W
- ▶ Pulse Energy up to 100  $\mu$ J
- ▶ High Peak Power up to 150 MW
- ▶ Pulse Duration Options 600-900 fs
- ▶ Repetition Rate up to 2.75 MHz
- ▶ Low-maintenance
- ▶ Rugged Design

IPG Photonics NEW **YLPF-100-750-100** hybrid-fiber femtosecond laser provides high peak power with scalable average output power of 100 W and customer selected pulse durations in the range of 600 to 900 fs at full operational repetition rate range of 50-2750 kHz.

The fiber design 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, 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.

# YLPF-100-750-100-R

## Ytterbium Femtosecond Hybrid Laser

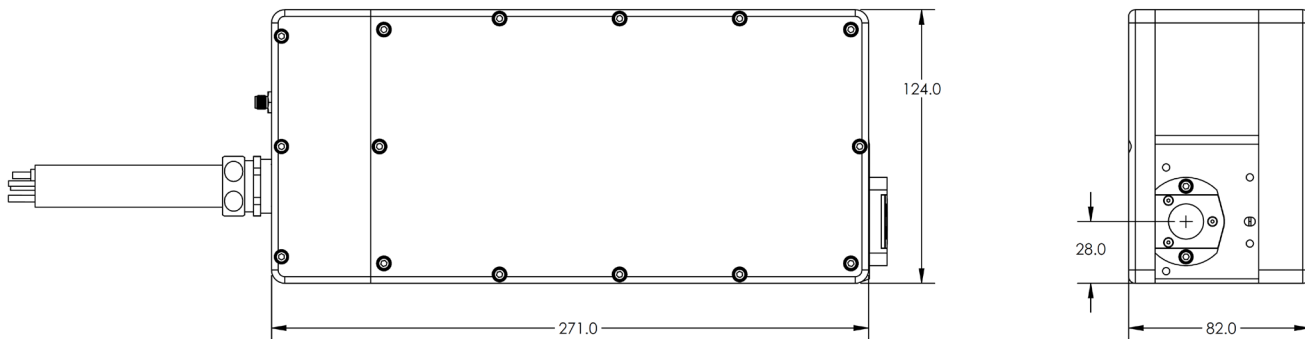
### Optical Characteristics\*

Wavelength, nm	1030
Max. Average Power, W	Up to 100
Pulse Energy, $\mu\text{J}$	100
Pulse Duration, fs	600-900, Typ. 750
Peak Power, MW	Up to 150
Repetition Rate, kHz	50-2750
Beam Quality, $M^2$	<1.5 (1.3 Typ.)

\*Customer can select models within maximum specified power, pulse energy and pulse durations in 600 to 900 fs range. Shorter pulse durations and pulse energies are available upon request.

### General Characteristics

Control Unit Dimensions (W x D x H), mm	448x580x133
Optical Head Dimensions (W x D x H), mm	82 x 271 x 124
Cooling	Water-cooled
Supply Voltage, VAC	100-240, 50/60 Hz
Power Consumption, W	<1200 W



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MAX. AVERAGE OUTPUT POWER: 200 W  
MAX. PEAK OUTPUT POWER: 300 MW  
PULSE DURATION: 600-900 fs  
PULSE REPETITION RATE: 50-2,750 kHz  
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

**The Power to Transform®**