

# YLPF/YLPP up to 100 W

## High Pulse Energy Ultrafast Lasers

Compact Lightweight Head  
Up to 200  $\mu$ J Pulse Energy



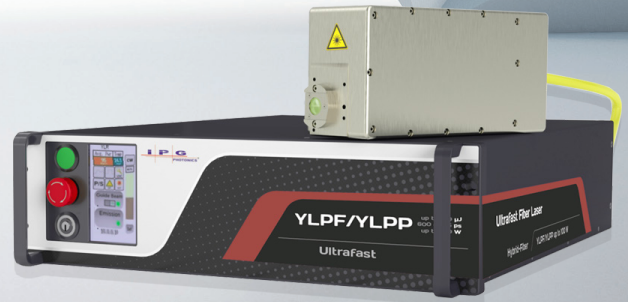
### FEATURES

- ▶ Wavelength 1030 nm
- ▶ Output Power up to 100 W
- ▶ Pulse Duration 600 fs – 3 ps
- ▶ Pulse Energy up to 200  $\mu$ J
- ▶ Repetition Rate up to 5.5 MHz
- ▶ Up to 4 m Remote Head Delivery Fiber
- ▶ Burst Mode Option
- ▶ Integrated Scanner Option
- ▶ Compact Lightweight Head
- ▶ Cold & Warm Start in Minutes
- ▶ Integrated AOM Pulse Picker



### APPLICATIONS

- ▶ Precision Micromachining
- ▶ Medical Device Manufacturing
- ▶ Surface Microstructuring and Texturing
- ▶ Sapphire LED Wafer Scribing
- ▶ Fine Tube Cutting
- ▶ Thin Film Ablation for Solar/PV/Flat Panel Display
- ▶ Cutting & Drilling Glass/Sapphire
- ▶ Battery and Thin Metal Foil Cutting
- ▶ Micromachining of Ceramics



**YLPF/ YLPP** hybrid-fiber ultrafast lasers provide high pulse energy and high peak power with scalable average output power up to 100 W and pulse durations in the range from 600 fs to 3 ps in 50-5500 kHz repetition rate range. Our fiber design is “beyond state-of-the-art”, enabling an incredibly compact laser that is inherently more power efficient, reliable and robust than conventional bulk-rod or disk based DPSS lasers, but priced significantly lower than the legacy products. The novel design architecture and flexible control electronics provide short warm-up times and allows adjustment of both pulse energy and repetition rate without affecting the output beam parameters. Burst mode option, shorter pulse durations and higher pulse energies are available upon request.

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## High Pulse Energy Ultrafast Lasers

Optical Characteristics*	YLPF-100-750-100	YLPP-100-1-100	YLPF-200-750-50	YLPP-200-1-50
Wavelength, nm	1030			
Max. Average Power, W	100		50	
Pulse Energy, $\mu$ J	100		200	
Pulse Duration, ps	0.75	1	0.75	1
Repetition Rate, kHz	50-5500			
Beam Quality, $M^2$	<1.4 (1.2 typ.)			

### General Characteristics

Control Unit Dimensions (W x D x H), mm	448 x 580 x 133
Optical Head Dimensions (W x D x H), mm	82 x 271 x 124
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. CONTINUOUS OUTPUT POWER: 200 W  
 PEAK OUTPUT POWER: 550 MW  
 PULSE DURATION: 600 fs-5ps  
 PULSE REPETITION RATE: 50-5500 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

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