



# YLP Series

## Ytterbium Nanosecond Pulse Fiber Lasers



### Applications

- ▶ Microcutting
- ▶ Scribing
- ▶ Trimming
- ▶ Hole drilling
- ▶ Ablation and cleaning
- ▶ Coating removal
- ▶ Precision marking
- ▶ Texturing



### Features

- ▶ Pulse Duration\* 100 ns
- ▶ Pulse Energy up to 1 mJ
- ▶ Average Power up to 100 W
- ▶ Pulse Rep. Rates 2-500 kHz
- ▶ Bitstream 1 Operating Mode
- ▶ Excellent Pointing Stability

\*Other fixed pulse durations are available upon request

The YLP Q-switch fiber laser modules produce 1064 nm pulses with 100 ns duration and pulse energies up to 1 mJ at repetition rates from 2 to 500 kHz. The average output powers range from 10 to 100 Watt. Conductive bottom or forced air cooling packages are available. Other fixed pulse durations options are available upon request. Beatstream 1 mode ensures fast and accurate pulse control. The high-brightness 6-7 mm beams are optimized for marking and micromachining applications such as micro cutting and scribing, trimming, texturing and precision surface treatment.

These compact air-cooled, maintenance-free modules are designed for OEM applications. The robust all-fiber design packaged into a rugged case allows operation in harsh industrial environments. The all-fiber format allows for the adjustment of peak power and/or pulse repetition rate without affecting any of the output beam parameters. These fiber lasers are much more efficient and compact than conventional solid state pulsed lasers.

Fine processing of thin foils and coating as well as treatment of surfaces can be optimized using wide range of operating parameters. They are ideal for applications in micromachining, scribing, hole drilling, ablation, resistor trimming, photovoltaics, texturing and marking.

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## Ytterbium Nanosecond Pulse Fiber Lasers

Optical Characteristics	10 W	20 W	30 W	50 W	100 W
Wavelength, nm	1064				
Mode of Operation	Pulsed				
Average Power*, W	10	20	30	50	100
Output Power Adjustment Range, %	10-100				
Pulse Energy, mJ	Up to 1 mJ				
Pulse Duration**, ns	100				
Nominal Repetition Rate, kHz	10	20	30	50	100
Repetition Rate, kHz	2-500				
Beam Quality, M <sup>2</sup>	<2				

General Characteristics	10 W	20 W	30 W	50 W	100 W
V2 Control Unit Dimensions, mm	215 × 286 × 95		215 × 260 × 140		
V3 Control Unit Dimensions, mm	215 × 325 × 44		N/A		
Optical Head Dimensions, mm	∅ × Length: 46 × 247				
Cooling	V2 - air, V3 - conductive				
Supply Voltage, VDC	24				
Typical Power Consumption, W	<65	<90	<115	<175	<340

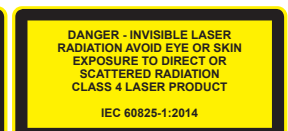
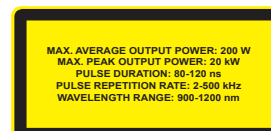
\* Please discuss availability of V2 and V3 packages at other power levels with your IPG Representative

\*\* Different pulse durations are available upon request

+1 (508) 373-1100;  
 +49 2736 44200; sales.europe@ipgphotonics.com (European Inquiries)

[www.ipgphotonics.com](http://www.ipgphotonics.com)

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