



# YLPN-2-20x500-300

## Adjustable Pulse Duration Fiber Laser

NEW PRODUCT



### Applications

- ▶ High Speed Marking
- ▶ Trimming
- ▶ Coating Removal
- ▶ Scribing
- ▶ Surface Treatment
- ▶ Texturing
- ▶ High Speed Cutting
- ▶ High Speed Engraving



### Features

- ▶ Pulse Energy up to 2 mJ
- ▶ Average Power up to 300 W
- ▶ Pulse Repetition Rates 2-4000 kHz
- ▶ Over 25% Wall-plug Efficiency
- ▶ Instant Modulation Response
- ▶ Excellent Pointing Stability
- ▶ Maintenance-free Operation
- ▶ Full Flexibility in Operating Parameters



IPG Photonics' YLPN-2-20x500-300 nanosecond ytterbium fiber laser provides average output power up to 300 W and adjustable pulse waveforms in the range of 20-500 ns. The laser is triggered externally in a wide range of pulse repetition rates 2-4000 kHz, offers pulse energy of up to 2 mJ and the ability to scale average power independent of the energy. An output isolator ensures high output power stability and allows to process highly reflective materials.

IPG's YLPN laser is a small air-cooled maintenance-free module 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. This fiber laser is much more efficient and compact than conventional lasers on the market. Fine processing of thin foils and coating as well as treatment of surfaces is easy to adjust using wide range of operating parameters. It is ideal for applications in micromachining, scribing, texturing, ablation, the solar/ photovoltaic arena, hole drilling, resistor trimming and marking.

# YLPN-2-20×500-300

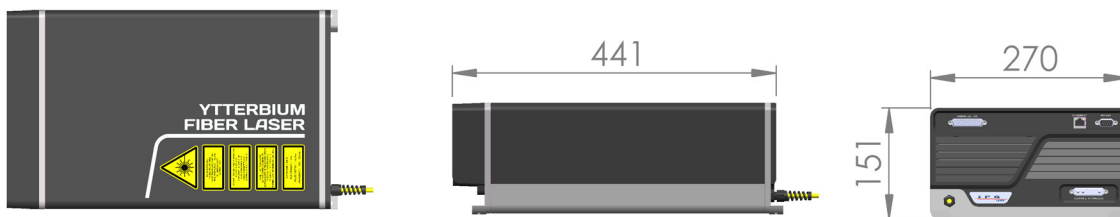
## Adjustable Pulse Duration Fiber Laser

### Optical Characteristics

|                              | YLPN-2-20×500-200 | YLPN-2-20×500-300 |
|------------------------------|-------------------|-------------------|
| Wavelength, nm               |                   | 1064              |
| Mode of Operation            |                   | Pulsed            |
| Maximum Average Power, W     | 200               | 300               |
| Power Tunability, %          |                   | 10-100            |
| Pulse Energy, mJ             |                   | 0.2 - 2           |
| Pulse Duration, ns           |                   | 20-500            |
| Repetition Rate, kHz         |                   | 2-4000            |
| Power Stability, %           |                   | ±2                |
| Beam Quality, M <sup>2</sup> |                   | ~ 1.5             |

### General Characteristics

|  |                 |           |
|--|-----------------|-----------|
| Module Dimensions (W × D × H), mm      | 270 × 441 × 151 |           |
| Optical Head Dimensions (L × diam), mm | 317 × 48        |           |
| Cooling                                | Air-cooled      |           |
| Supply Voltage, VDC                    | 48              |           |
| Power Consumption, W                   | Typ. 700        | Typ. 1000 |



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

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

**Legal notices:** All product information is believed to be accurate and is subject to change without notice. Information contained herein shall legally bind IPG only if it is specifically incorporated into the terms and conditions of a sales agreement. Some specific combinations of options may not be available. The user assumes all risks and liability whatsoever in connection with use of a product or its application. IPG, IPG Photonics, The Power to Transform and IPG Photonics' logo are trademarks of IPG Photonics Corporation. © 2020 IPG Photonics Corporation. All rights reserved.

MAX AVERAGE OUTPUT POWER: 600 W  
 MAX. PEAK OUTPUT POWER: 250 kW  
 PULSE DURATION: 20 – 500 ns  
 PULSE REPETITION RATE: 2-10,000 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®**