

# GLR Series

## CW Green Single-frequency Fiber Lasers



### Applications

- ▶ Pumping Ti:Sapphire, OPOs, Solid State & Dye Lasers
- ▶ Atom Cooling & Trapping
- ▶ Particle Imaging Velocimetry/ Flow Visualization
- ▶ Holography & Interferometry
- ▶ Solar Cell Manufacturing
- ▶ Medical Diagnostics, Therapy & Surgery
- ▶ Manufacturing Inspection & Quality Control
- ▶ Entertainment & Projection



### Features

- ▶ Wavelength 532 nm
- ▶ Output Power up to 100 W
- ▶ Beam Quality  $M^2 < 1.1$
- ▶ Single-frequency  $< 1$  MHz
- ▶ Power Stability 1%
- ▶ Optical Noise  $< 0.2\%$  RMS
- ▶ Linear Polarization  $> 100:1$
- ▶ Compact & Low Cost
- ▶ Telecom Reliability
- ▶ Industrial Performance

**IPG Photonics' GLR Series** is a family of single-mode, single-frequency CW green fiber lasers with output powers up to 100 W. Based on IPG's pioneering highly efficient and reliable fiber laser technologies, GLR lasers feature a super-compact lightweight optical head, connected with a fiber cable to an air-cooled, rack-mounted main laser console. The all fiber construction allows for full range adjustment of output power without any change in power stability and beam mode parameters. The GLR Series green CW lasers are used across a variety of applications from materials processing and medical to scientific and entertainment.

# GLR Series

## CW Green Single-frequency Fiber Lasers

### Optical Characteristics

	GLR-10	GLR-20	GLR-30	GLR-50	GLR-80	GLR-100
Wavelength, nm	532					
Linewidth FWHM, MHz	<1					
Mode of Operation	CW					
Max. Average Power <sup>1</sup> , W	10	20	30	50	80	100 <sup>2</sup>
Power Tunability, %	5.0-105	2.5-105	2.3-105	2.0-105		
Power Stability <sup>3</sup> , %	± 0.5					
Optical Noise (<20 MHz), %RMS	<0.2					
Polarization	Linear, >100:1					
Beam Quality, M <sup>2</sup>	<1.1					

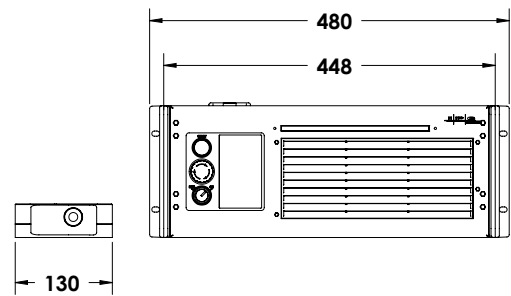
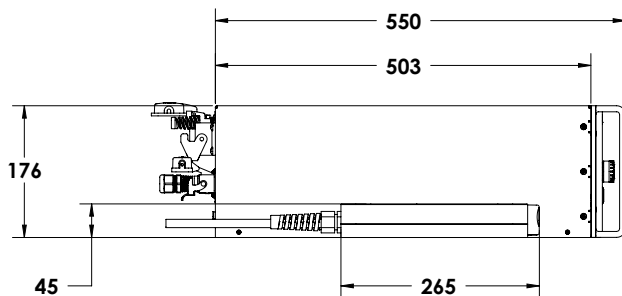
<sup>1</sup> Higher output powers are available in GLPN model. Please contact IPG for more information.

<sup>2</sup> 100 W Available with Special Order

<sup>3</sup> Over 8 hours, T= const.

### General Characteristics

Main Console Dimensions, mm	448 x 403 x 132			448 x 503 x 176		
Optical Head Dimensions, mm	130 x 265 x 45					
Cooling	Air-cooled					
Supply Voltage, VAC	Single-phase 50-60 Hz, 100-240					
Power Consumption, W	120	180	240	300	450	



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