

GLR-50

CW Green Single-frequency Fiber Laser



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 50 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 50 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.

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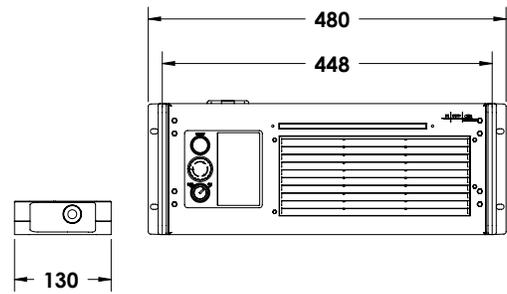
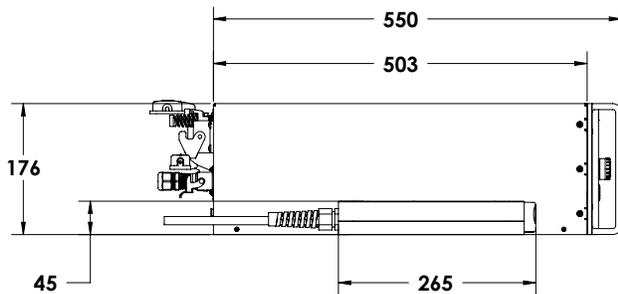
Optical Characteristics

	GLR-10	GLR-20	GLR-30	GLR-50
Wavelength, nm	532			
Linewidth FWHM, MHz	<1			
Mode of Operation	CW			
Average Power, W	10	20	30	50
Power Stability*, %	± 0.5			
Optical Noise (<20 MHz), %RMS	0.2			
Polarization	Linear, >100:1			
Beam Quality, M ²	TEM _{00'} < 1.1			

* over 8 hours, T= const.

General Characteristics

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



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