# **PGFL** PULSED GREEN FIBER LASER





#### **MAIN FEATURES**

- Energy per pulse up to 50  $\mu$ J
- Peak power up to 12 kW
- Average power up to 1.8 W in compact and rugged package
- Pulse repetition frequency from 15 kHz to 1 MHz
- Pulse duration from 0.5 to 4 ns
- · Diffaction limited output beam
- Low power consumption

#### MAIN APPLICATIONS

- ENVIRONMENTAL MONITORING
- UNDERWATER TELEMETRY
- UNDERWATER RANGE-FINDING
- 3D SCANNING
- MAPPING

The PGFL series is a range of 532 nm pulsed fiber lasers, delivering high peak power and high energy per pulse in compact modules with a diffraction-limited output beam for range finding applications. Green lasers are commonly used for underwater operations in mapping and 3D scanning applications.

The optical design consists of a 1064 nm fiber laser connected to a high-efficiency second-harmonic generator. Compared to other technologies, the innovative optical architecture offers a better electricaltrigger to optical-pulse delay jitter and an excellent pulse duration stability, allowing enhanced performance of the user's system.

The laser modules incorporate a microcontroller for internal controls, alarms, and RS232/USB communication, making the laser widely compatible. Pulses are triggered by an external signal supplied by the user system.

The rugged module can work in the most demanding environments. Its light weight and low power consumption are a particular advantage when using on drones.

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Many options and configurations are available. Please contact Lumibird to find the best match for your needs and compatibility between options.



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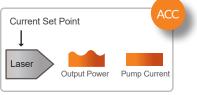
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### **SPECIFICATIONS**

Mode of operation	Pulsed
Operating wavelength (nm)	532
Pulse duration (FWHM, ns)	From 0.5 to 4
Energy per pulse (µJ)	Up to 50
Peak power (kW)	Up to 12
Pulse repetition frequency (kHz)	From 15 to 1000
Average power (W)	Up to 1.8
Polarization	Linear
Output termination	Optical head, free space
Beam quality, M <sup>2</sup>	From < 1.1 to < 1.4

#### Mode of operation



ACC (Automatic Current Control)

Several models are available. Contact us for specific datasheets.



## Control box

• Control box and cables delivered with the module for easy evaluation

 $\cdot$  Available as an option



## Remote control

- RS232 interface
- Serial command set provided for easy integration
- GUI available



## Reliability

All our fiber lasers and fiber amplifiers are manufactured according to our ISO certified quality management system, which places the needs and values of customers and partners at the heart of our organization. Throughout the manufacturing process, our components and systems are subjected to rigorous tests and inspections, which guarantees their robustness and reliability in the most demanding environments. Countless units operate continuously without maintenance around the world. The ISO 9001 certificates can be downloaded from our website.



LASER RADIATION AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION CLASS 4 LASER PRODUCT

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