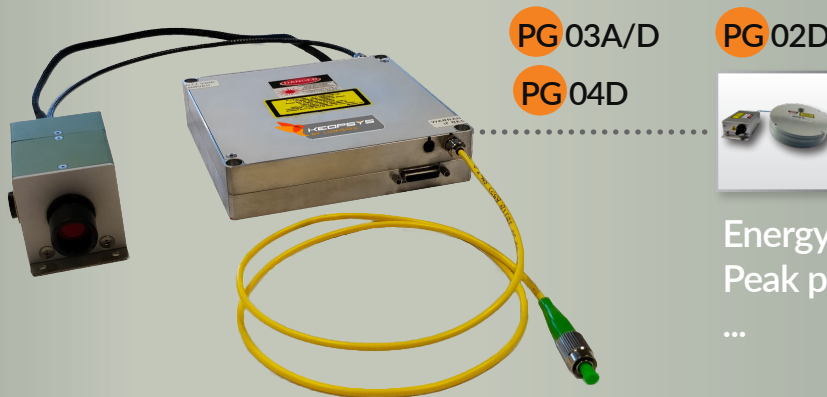


532 nm



Energy per pulse up to 50  $\mu$ J,  
Peak power up to 12 kW,  
...

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

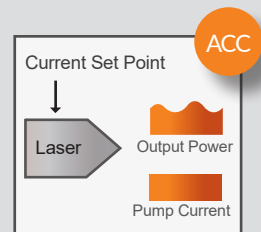
The optical design consists in a 1064nm fiber laser connected to a high-efficiency second-harmonic generator. Compared to other technologies, the innovative optical architecture offers a better electrical-trigger to optical-pulse delay jitter and an excellent pulse duration stability allowing to enhance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

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

The rugged module can work in the most stringent environments. Moreover, its light weight and its low power consumption are a big advantage for integrations on drones.

### Modes of operation

The devices offer one mode of operation :



ACC (Automatic Current Control) mode is standard for all devices. The laser is controlled from diodes current set point.

### Key features

- Energy per pulse up to 50  $\mu$ J
- Peak power up to 12 kW
- Average power up to 1.8 W
- Pulse repetition frequency from 15 kHz to 50 kHz
- Diffraction limited output beam
- Low power consumption
- Compact and rugged package

### What applications

- Environment monitoring
- Underwater telemetry
- Underwater range-finding
- 3D scanning
- Mapping



Optical Specifications @ 25 °C	PGFL
Mode of operation	Pulsed
Operating wavelength	532 nm
Energy per pulse	Up to 50 $\mu$ J
Peak power	Up to 12 kW
Average power	Up to 1.8 W
Pulse repetition frequency	From 15 to 50 kHz
Pulse duration (FWHM)	From 1 to 4 ns
Polarization	Linear
Beam Quality, M <sup>2</sup>	From < 1.1 to <1.4
Output termination	Optical Head, free space

### The PGFL is available as OEM module

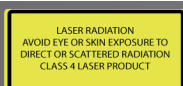
#### RELIABILITY

The Lumibird range of fiber lasers are manufactured with tested components and are submitted to several inspections during the manufacturing process under a rigorous quality management certified in accordance with the ISO 9001:2015 standard. Our all-in-fiber systems offer maintenance-free operation. Countless units are continuously running in demanding environments with no failure.

#### GUARANTEE

Our fiber systems are under 1 full year parts and labor warranty. We offer a warranty extension of 1 or 2 years. Please contact us.

For ordering information and custom solutions, please contact us : [websales@keopsys.com](mailto:websales@keopsys.com)



Lumibird undertakes a continuous and intensive product development program to ensure that its products perform to the highest technical standards. As a result, the specifications in this document are subject to change without notice.

Lumibird has locations across the globe that are available to provide support for any product, service or inquiry. Visit [www.lumibird.com](http://www.lumibird.com) to connect with any of our global sites.

