

# PTFL-KULT

PULSED THULIUM FIBER LASER

2.0  $\mu\text{m}$  ULTRA-COMPACT LASER TRANSMITTER



2.0  $\mu\text{m}$



PK 2A

2  $\mu\text{m}$  eye-safe operation,  
Energy per pulse up to 15  $\mu\text{J}$ ,

...

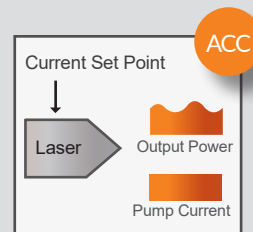
The PTFL-KULT series is a range of 2 $\mu\text{m}$  pulsed fiber laser transmitters, delivering peak power up to 15 $\mu\text{W}$  and energy per pulse up to 15 $\mu\text{J}$  in ultra-compact modules with diffraction-limited output beam for range finding applications. Compact 2 $\mu\text{m}$  pulsed laser transmitters are commonly used in applications such as 3D scanning, mapping, telemetry, and also for supercontinuum generation.

The compact platforms allow an easy integration in highly integrated systems. The all-in-fiber design requires no maintenance. The PEFL-KULT has been tested under vibrations and shocks conditions in accordance with military standards (MIL-STD-810G, RTCA-DO-160G...) allowing operations in the harshest environmental conditions over a long period of time.

Lumibird electronic board designs offer a wide range of functionalities. The control of the PEFL-KULT is purely analogic making easy its integration. Pulses are triggered by an external signal supplied by the user system.

## Modes of operation

The devices offer one mode of operation :



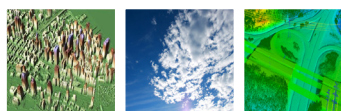
ACC (Automatic Current Control) mode is standard for all devices. The laser is controlled from diodes current set point.

## Key features

- 2  $\mu\text{m}$  eye-safe operation
- Energy per pulse up to 15  $\mu\text{J}$
- Peak power up to 1.5 kW
- Pulse duration 10 ns
- Pulse repetition frequency from 5 kHz to 20 kHz
- Linear or random polarization
- Diffraction limited output beam
- Low power consumption
- Wide operating temperature range (-35  $^{\circ}\text{C}$  to +65  $^{\circ}\text{C}$ )
- Compact and rugged package

## What applications

- Telemetry, Range-finding
- 3D scanning
- Mapping
- Supercontinuum generation



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PULSED THULIUM FIBER LASER  
2.0 μm ULTRA-COMPACT LASER TRANSMITTER



## Optical Specifications @ 25 °C

PTFL-KULT	
Mode of operation	Pulsed
Operating wavelength	1995 nm*
Wavelength excursion over T range	10 nm
Energy per pulse	Up to 15 μJ
Peak power	Up to 1.5 kW
Average power	Up to 200 mW
Pulse repetition frequency	From 5 to 20 kHz
Pulse duration	10 ns
Pigtail length	32+/-2 cm
Fiber type	SMF/PANDA
Polarization	Random or Linear
Beam quality, M <sup>2</sup>	<1.1
Output termination	FC/APC

\*Other wavelength on request

The PTFL-KULT is available as OEM module for an easy integration

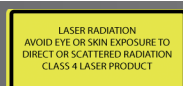
### RELIABILITY

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.

