

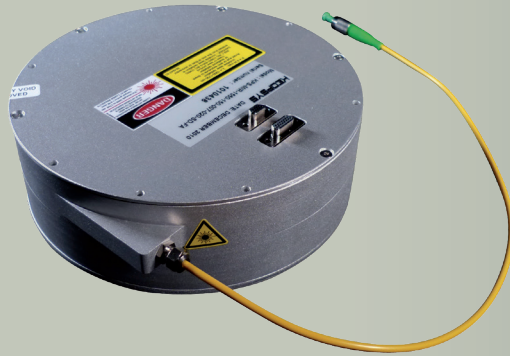
# PEFL-MIRVISION

## PULSED ERBIUM FIBER LASER

### 1.5 $\mu\text{m}$ EYE-SAFE HIGH POWER LASER TRANSMITTER



1.5  $\mu\text{m}$



PM 2D / PM 3D

1.5  $\mu\text{m}$  eye-safe operation,  
Energy per pulse up to 350  $\mu\text{J}$ ,

...

The PEFL-MIRVISION series is a range of 1.5 $\mu\text{m}$  pulsed fiber laser transmitters, delivering high peak power and high energy per pulse in compact modules for long-range applications.

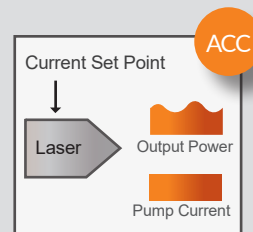
A varied choice of models offers the possibility to operate over a wide range of operating setpoints (pulse duration, pulse repetition frequency and energy) allowing to be suitable for a various of high-accuracy systems. Compact pulsed laser transmitters are commonly used in applications such as Airborne 3D scanning and mapping, telemetry, obstacle detection and supercontinuum generation.

The all-in-fiber design requires no maintenance. The PEFL-MIRVISION 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. Platforms incorporate a microcontroller for internal controls, alarms, and RS232/USB communication making the laser compatible all systems. 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

- 1.5  $\mu\text{m}$  eye-safe operation
- Energy per pulse up to 350  $\mu\text{J}$
- Peak power up to 25 kW
- Choice of pulse duration from 0.5 ns to 200 ns
- Pulse repetition frequency from 15 kHz to 2 MHz
- Linear or random polarization
- High output-beam quality (from 1 to 2.5)
- Low power consumption
- Wide operating temperature range (-35  $^{\circ}\text{C}$  to +65  $^{\circ}\text{C}$ )
- Rugged and compact package

## What applications

- Telemetry, range-finding
- Obstacle detection
- Airborne survey, mapping
- 3D scanning
- Supercontinuum generation



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### 1.5 μm EYE-SAFE HIGH POWER LASER TRANSMITTER



#### Optical Specifications @ 25 °C

#### PEFL-MIRVISION

PEFL-MIRVISION	
Mode of operation	Pulsed
Operating wavelength	1545+/-1 nm <sup>1</sup>
Wavelength excursion over T °C range	<0.3 nm
Energy per pulse	Up to 350 μJ
Peak power	Up to 25 kW
Average power	From 3 to 10 W
Pulse repetition frequency	From 15 kHz to 2 MHz
Pulse duration (FWHM)	From 0.5 to 200 ns
Random or Linear (15 dB) polarization	RP or LP
Output termination	FC/APC or Collimator
Seed tap (option)	1 m pigtail length, > 0.1mW peak power, SMF, FC/PC

1 : Other wavelength on request

### The PEFL-MIRVISION lasers are available as OEM module for an easily integration

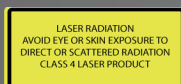
#### RELIABILITY

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 then 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.

