

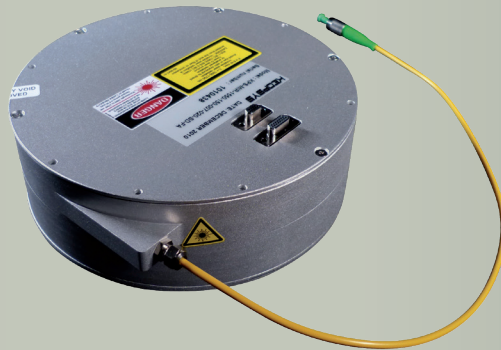
PYFL-MIRVISION

PULSED YTTERBIUM FIBER LASER

1.0 μm HIGH POWER LASER TRANSMITTER



1.0 μm



PM 2D / PM 3D

Energy per pulse up to 100 μJ ,
Peak power up to 25 kW,

...

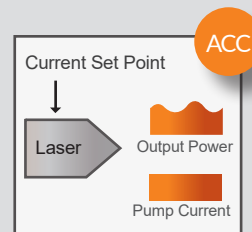
The PYFL-MIRVISION series is a range of 1 μm pulsed fiber laser transmitters, delivering high peak power and high energy per pulse in compact modules for long-range applications. A varied choice of models offers the possibility to operate over a wide range of operating setpoints (pulse duration, pulse 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, and also harmonic and supercontinuum generation.

The all-in-fiber design requires no maintenance. The PYFL-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 :



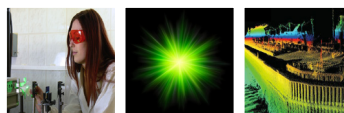
ACC (Automatic Current Control) mode is standard for all devices. The laser is controlled from diodes current set point.

Key features

- Energy per pulse up to 100 μJ
- Peak power up to 25 kW
- Choice of pulse duration from 1 ns to 4 ns
- Pulse repetition frequency from 50 kHz to 1 MHz
- Linear or random polarization
- High output-beam quality
- 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
- Harmonic generation
- Bathymetry



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Optical Specifications @ 25 °C

PYFL-MIRVISION	
Mode of operation	Pulsed
Operating wavelength	1064 +/-2 nm
Wavelength excursion over T range	<0.3 nm
Energy per pulse	Up to 100 μJ
Peak power	Up to 25 kW
Average power	Up to 10 W
Pulse repetition frequency	From 50 kHz to 1 MHz
Pulse duration (FWHM)	From 1 to 4 ns
Fiber type	LMA / LMA PANDA (20 μm, 0.08 NA)
Polarization	Random or Linear
Beam quality, M ²	<1.3
Output termination	FC/APC or Collimator
Seed tap (option)	1 m pigtail length, , > 0.1mW peak power, SMF, FC/APC

The PYFL-MIRVISION lasers are available as OEM module for an easy integration

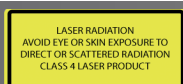
RELIABILITY

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



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 to connect with any of our global sites.

