

# PTFL-KULT SERIES

## PULSED THULIUM FIBER LASER

2.0 μm ULTRA-COMPACT LASER TRANSMITTER



### KEY FEATURES

- 2 μm eye-safe operation
- Energy per pulse up to 15 μJ
- Peak power up to 1.5 kW
- Pulse duration from 10 to 40 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 °C to +65 °C)
- Compact and rugged package

### Description

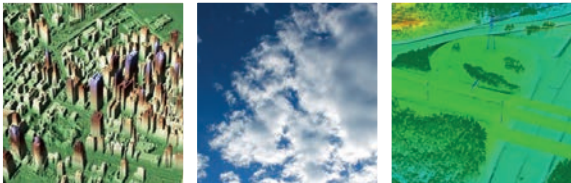
**PTFL-KULT 2 μm series Thulium doped fiber lasers are eye-safe pulsed laser sources delivering high peak power and high energy per pulse in a very compact package.**

The 2 μm KULT laser is one of the most compact laser of its category. Due to its low attenuation during atmospheric propagation, this laser allows ultra long range finding through mist and damp air.

The output beam is near gaussian beam M2<1.1 diffraction-limited.

This source is ideal for telemetry or range-finding applications and can be operated in harsh environment.

### APPLICATIONS



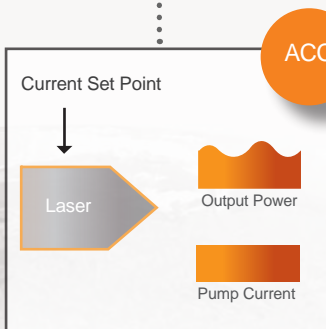
- Telemetry, Range-finding
- 3D scanning
- Mapping
- Cloud height measurement
- Wind sensing
- Pollution monitoring

1 Platform



### Mode 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.

PK 2A

## PTFL-KULT SERIES

2  $\mu\text{m}$  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	From 10 to 15 $\mu\text{J}$
Peak power	1.5 kW
Average power	From 75 to 200 mW
Pulse repetition frequency	From 5 to 20 kHz
Pulse duration	10 to 40 ns
Pigtail length	32+/-2 cm
Fiber type	SMF/PANDA
Polarization	Random or Linear
Beam quality, $M^2$	<1.1
Output termination	FC/APC

\*Other wavelength on request

**The PTFL series lasers are available as OEM module for an easily integration.**

### RELIABILITY

The Keopsys 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 9001:2008 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 guarantee. We offer a warranty extension of 1 or 2 years. Please contact us.

## PTFL-KULT SERIES

2 μm ULTRA-COMPACT LASER TRANSMITTER

### Optical Specifications @ 25 °C

	PTFL-KULT*	
	K01	K02
Mode of operation	Pulsed	
Operating wavelength	1995 nm**	
Wavelength excursion over T range	10 nm	
Energy per pulse	15 μJ	10 μJ
Peak power	1.5 kW	1 kW
Average power	75 mW	200 mW
Pulse repetition frequency	5 kHz	20 kHz
Pulse duration	10 ns	
Pigtail length	32+/-2 cm	
Fiber type	SMF/PANDA	
Random or Linear (15 dB) polarization	RP or LP	
Beam quality, M <sup>2</sup>	<1.1	
Output termination	FC/APC	
Power consumption	<10 W	<16 W
Associated platform	PK2A	

### Platform Specifications

	Platform type
	PK2A
DC voltage	5 to 12 V and 3.3 V
Control Interface	Analog
External trigger signal	TTL
Warm-up time	<1 min
Dimensions (D x H)	90x20 mm
Weight	<200 g
Operating case temperature	0 °C to +50 °C (-35 °C to +65 °C optional)
Storage temperature	-40 °C to +85 °C

\* For each model, other sets for energy, pulse duration and repetition rate are possible

\*\* Other wavelength as option : 1945 nm

### Ordering information

