PYFL-KULT SERIES

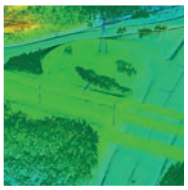
PULSED YTTERBIUM FIBER LASER

1.Ø µm ULTRA-COMPACT LASER TRANSMITTER

KEY FEATURES

- 1064 nm operating wavelength
- Energy per pulse up to 25 µJ
- Peak power up to 25 kW
- Pulse duration 1 ns to 50 ns
- Pulse repetition frequency from 5 kHz to 1 MHz
- Continuous or burst operation
- Linear or random polarization
- Diffraction limited output beam
- Low power consumption
- Wide operating temperature range (-35 °C to +65 °C)
- Compact and rugged module

APPLICATIONS



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

Description

1.0 µm

PYFL-KULT series are pulsed Ytterbium doped fiber lasers, delivering high peak power and high energy per pulse in a very compact package.

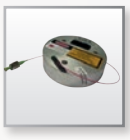
These KULT lasers provide high quality output beams (diffraction-limited, M2<1.1 or near Gaussian, M2<1.5).
The leading characteristic of the PYFL-KULT is its narrow linewidth that allows high efficiency frequency doubling.

Our patented VSP technology insure robustness and high reliability for cost effective solution, without maintenance.
Keopsys offers compact packages ideally design for integration either analogic or digital controls. It is maintenance free and can be operated in harsh environment.

These lasers sources are design for industrial solution such as super-continuum generation, telemetry, range finding, mapping…

3 Platforms

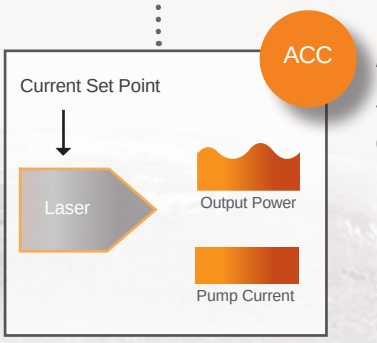
PK 5A/ PK 5D



PK 2A

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.

KEOPSYS THE LIGHT TOUCH

V3.0

PYFL-KULT SERIES

1µm ULTRA-COMPACT LASER TRANSMITTER

Optical Specifications *@ 25 °C*	**PYFL-KULT**
Mode of operation	Pulsed
Operating wavelength	1064 +/-2 nm
Wavelength excursion over T range	<0.3 nm
Energy per pulse (EPP)	1 to 25 µJ
Peak power (PP)	1 to 25 kW
Average power (AP)	5 to 1300 mW
Pulse repetition frequency (PRF)	5 kHz to 1 MHz
Pulse duration (FWHM)	1 to 5 ns
Seed tap (option)	1 m pigtail length, SMF, FC/APC
Pigtail length	32 +/-2 cm
Fiber type	SMF / PANDA / LMA / LMA PANDA
Polarization	Random or Linear
Beam quality, M^2	1.1 to 1.3
Output termination	FC/APC or Collimator

The PYFL-KULT series laser 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.

KEOPSYS THE LIGHT TOUCH

V3.0

PYFL-KULT SERIES

1µm ULTRA-COMPACT LASER TRANSMITTER

Optical Specifications @ 25 °C	PYFL-KULT*			
	K01	K02	K03	K04
Mode of operation	Pulsed			
Operating wavelength	1064 +/-2 nm			
Wavelength excursion over T range	<0.3 nm			
Energy per pulse	1 µJ	3 µJ	10 µJ	25 µJ
Peak power	1 kW		10 kW	25 kW
Average power	5 mW	300 mW	500 mW	1300 mW
Pulse repetition frequency	5 kHz	100 kHz	50 kHz	
Pulse duration (FWHM)	1 ns	3 ns	1 ns	
Seed tap (option)	1 m pigtail length, SMF, FC/APC			
Pigtail length	32 +/-2 cm			
Fiber type	SMF/PANDA	LMA/LMA PANDA (10 µm, 0.08 NA)		LMA/LMA PANDA (20 µm, 0.08 NA)
Random or Linear (15dB) polarization	RP or LP			
Beam quality, M^2	<1.1			<1.3
Output termination	FC/APC or Collimator			
Power consumption	<8 W	<15 W	<20 W	<40 W
Associated platform	PK2A	PK5A/D		

Platform Specifications	Platform type		
	PK2A	PK5A	PK5D
DC voltage	5 to 12 V and 3.3 V	18 to 32 V	
Control Interface	Analog		RS232
External trigger signal	TTL		
Warm-up time	<1 min		
Dimensions (D x H)	90x20 mm	120x27 mm	
Weight	<200 g	<450 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**

Ordering information