

PEFL-KULT SERIES

PULSED ERBIUM FIBER LASER

 $1.5~\mu m$ ULTRA COMPACT LASER TRANSMITTER

KEY FEATURES

- 1.5 µm eye-safe operation
- Energy per pulse up to 100 μJ
- Peak power up to 15 kW
- Pulse duration from 0.5 ns to 200 ns
- Pulse repetition frequency from 10 Hz to 1 MHz
- Continuous or burst operation
- Diffraction limited output beam
- Linear or random polarization
- Low power consumption
- Wide operating temperature range (-35 °C to +65 °C)
- Compact and rugged package

APPLICATIONS

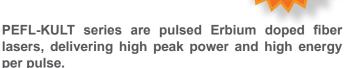






- Telemetry, range-finding
- 3D scanning
- Mapping
- Cloud height measurement
- Wind sensing
- Supercontinuum generation

Description



These PEFL-KULT lasers provide high quality output beams (diffraction-limited, M2<1.1 or near Gaussian, M2<1.5). Our patented VSP technology insure robustness and high reliability for cost effective solution, without maintenance.

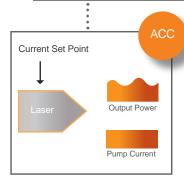
Keopsys offers compact packages ideally design for integration either analogic or digital controls. It is maintenance free and can be operated in harsh environment.

These lasers sources are design for industrial solution such as 3D scanning, Wind sensing, supercontinuum generation and telemetry.





he 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.



PEFL-KULT SERIES

1.5 μm ULTRA COMPACT LASER TRANSMITTER

Optical Specifications	PEFL-KULT					
@ 25°C						
Mode of operation	Pulsed					
Operating wavelength	1545 – 1560 nm *					
Energy per pulse	1.5 to 100 μJ					
Peak power	100 W to 15 kW					
Average power	40 to 1200 mW					
Pulse repetition frequency	10 Hz to 1 MHz					
Pulse duration (FWHM)	0.5 to 200 ns					
Seed tap (Option)	1 m pigtail length, SMF, FC/PC					
Pigtail length	30 cm to 1 m					
Fiber type	SMF – PANDA - LMA					
Polarization	Random or linear					
Beam quality, M ²	1.1 to 1.5					
Output termination	FC/APC, ferule APC or Collimator					

^{*} Other wavelength on request

The PEFL 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.



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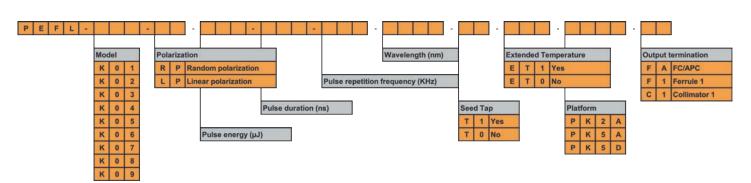
1.5 μm ULTRA COMPACT LASER TRANSMITTER

Optical Specifications	PEFL-KULT*								
@ 25 ℃	K01	K02	K03	K04	K05	K06	K07	K08	K09
Mode of operation	Pulsed								
Operating wavelength	1556+/-3 nm		1545 nm**		1556 +/-3 nm	1545 nm**	1556 +/- 3nm	15/5 nm**	
Wavelength excursion over T range	10 nm <0.3 nm		10 nm	<0.3 nm	10 nm	n <0.3 nm			
Energy per pulse	5 μJ	35 µJ	6 µJ	8 µJ	18 µJ	48 μJ	1.5 µJ	12 µJ	3 µJ
Peak power	100 W	580 W	6 kW	40 W	2 kW	12 kW	0.5 kW	4 kW	6 kW
Average power	40 mW	175 mW	600 mW	800 mW	900 mW	1200 mW	150 mW	600 mW	300 mW
Pulse repetition frequency	8 kHz	5 kHz	100	kHz	50 kHz	25 kHz	100 kHz	50 kHz	100 kHz
Pulse duration (FWHM)	~10 ns 50 ns (bottom)	~40 ns 60 ns (bottom)	1 ns	200 ns	7 ns	4 ns	3 ns 0.5 ns		
Seed tap (Optional)	1 m pigtail length, SMF, FC/PC								
Pigtail length	62 +/-2 cm 32 +/-2 cm								
Fiber type	SM	SMF SMF/PANDA			SMF	LMA (15 μm, 0.08 NA) / LMA PANDA (20 μm, 0.08 NA)	SMF	SMF/PANDA	
Random or Linear (17 dB) polarization	R	RP RP or LP		or LP	RP	RP or LP	RP	RP	or LP
Beam quality, M ²	< 1.1				<1.5	<1.1			
Output termination	FC/APC, ferule APC or Collimator								
Power consumption	<3 W	<10 W	<16 W	<18 W	<20 W	<30 W	<10 W	<16 W	<15 W
Associated platform	PK2A				PK5A/D	PK2A			

Platform Specifications	Platform type					
	PK2A	PK5A	PK5D			
DC voltage	5 to 12V and 3.3 V	18 to 32 V				
Control Interface	An	RS232				
External trigger signal	TTL					
Warm-up time	<1 min					
Dimensions	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



^{**} Other wavelength as option: 1550 nm