

CYFL-KILO SERIES

CONTINUOUS WAVE YTTERBIUM FIBER LASER
1 μm KILAS-COOL FIBER LASERS FOR COOLING



KEY FEATURES

- Narrow linewidth
- Single frequency laser
- 1064 and 1083 nm standard operating wavelengths
- Output power up to 20 W
- Ultra low phase noise and RIN
- Excellent SMSR
- Wavelength tunability (optional)
- Laser frequency modulation (optional)
- Diffraction limited output
- Random or linear polarization
- Maintenance free
- Turn-key operation

Description

CYFL-KILO series are Ytterbium fiber doped lasers and provide a longitudinal single mode and frequency output laser beam. They deliver up to 20 W with low phase and intensity noise.

CYFL-KILO are based on a MOFPA design, they integrate an ultra-low noise and narrow linewidth seed laser which is amplified through several stages Ytterbium doped amplifier. These lasers can be thermally tuned in wavelength over 70 GHz and their central emission line can be modulated for locking purposes. Robustness, reliability and maintenance free are defining this unique laser.

The Keopsys' MOFPA design insure reliable and robust systems which are coming as entirely integrated turn-key 3U rack for scientific and industrial applications. The systems offer different controls mode either from the front face or with a PC via RS232 using B2V2 Keopsys program.

APPLICATIONS



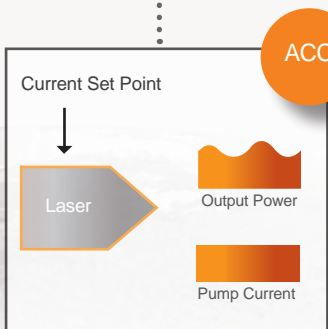
- Quantum optics such as Bose-Einstein condensate
- Optical tweezing
- Atomic laser interferometry
- Formation of cold molecules
- Nonlinear optics (SHG, OPO)
- Metrology

2 Platforms

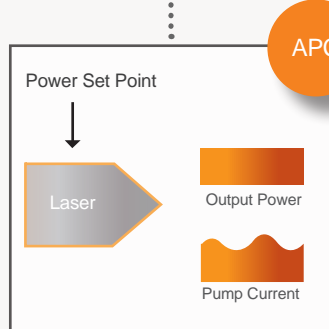


Modes of operation

The devices offer several modes of operation :



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



APC (Automatic Power Control) mode allows to control the laser at a fixed output power set point. The device maintains a constant optical output power monitored with a photodiode. The current is adjusted automatically.

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1.0 μm KILAS-COOL FIBER LASERS FOR COOLING

Optical Specifications	CYFL-KILO
@ 25 °C	
Mode of operation	CW
Output power	From 1 to 20 W
Standard operating wavelength	1064 and 1083 nm
Wavelength stability over 1 hour, +/- 1 °C	+/- 15 MHz
Wavelength thermal tuning range	Option
Laser frequency modulation range	Option
Laser frequency modulation bandwidth	DC to 20 kHz (input analog voltage 0 to 200 V, 200 V/ms max)
Spectral linewidth	< 70 kHz
Output isolation	Yes
Polarization	Random or Linear (17 dB PER)
Seed Tap	Option
Output monitoring	Option (Internal photodiode and automatic power control mode)
Beam quality, M ²	< 1.1
Output termination	FC/APC, E2PS or Collimated

The CYFL-KILO series lasers are available as benchtop.

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.

For ordering information and custom solutions, please contact us : websales@keopsys.com



Keopsys undertakes a continuous and intensive product development program to ensure that its products perform to the highest technical standards. As a result, the specifications in this document are subject to change without notice.



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