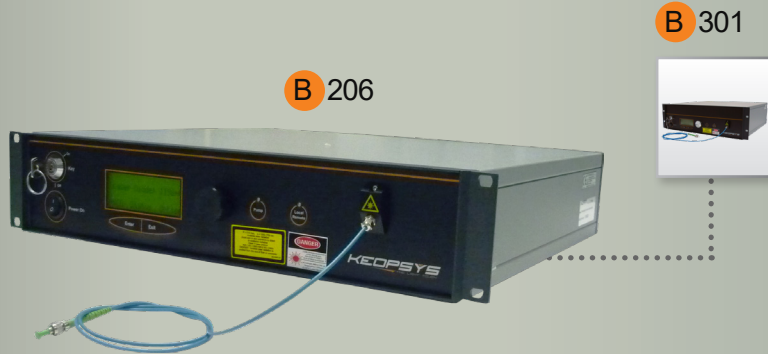


CYFL-KILO

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



1.0 μm



Narrow linewidth,
Single frequency laser,
...

CYFL-KILO stands for Ytterbium fiber laser. The series provides a longitudinal single mode and frequency output laser beam. These lasers series deliver up to 20W with low phase noise and low Relative Intensity Noise.

Lumibird ytterbium fiber laser is manufactured for scientific applications as interferometry, quantum optics, metrology, atom trapping. Lumibird uses its knowledge and high-quality manufacturing process to produce a stable and reliable narrow linewidth fiber laser. Different central wavelengths are available in standard, 1030nm, 1064nm, 1083nm, and others on request. The ytterbium fiber laser can be randomly or linearly polarized. For applications like atomic trapping, or interferometry where a linear polarization is needed, then the CYFL-KILO polarization is highly stable.

Reliability and maintenance free are defining this single laser. Coming as an entirely integrated turnkey benchtop, which can be driven directly from the front face. The systems offer different controls mode either from the front face or via RS232.

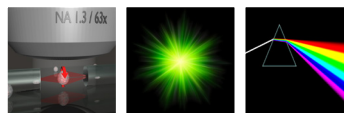
No installation is required as the fiber laser is easy to use, however, on request Keopsys provides support for its first start.

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

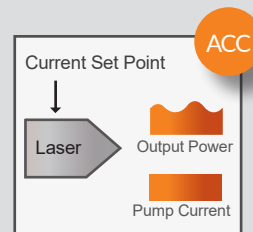
What applications

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

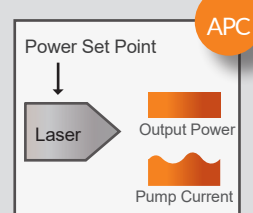


Modes of operation

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 controlling 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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Optical Specifications @ 25 °C	CYFL-KILO
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 100 kHz (G1) DC to 20 kHz (G2 and G3)
Spectral linewidth	<15 kHz (G1) <20 kHz (G2) <3 kHz (G3)
Output isolation	Yes
Polarization	Random or Linear (17 dB PER)
Seed Tap	Option
Output monitoring	Option (Internal photodiode and automatic power control mode if P \leq 10 W)
Beam quality, M ²	< 1.1 for P \leq 2 W and < 1.3 for P \geq 5 W
Output termination	FC/APC, E2PS or Collimated

The CYFL-KILO is available as turn-key benchtop.

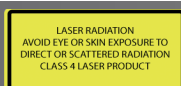
RELIABILITY

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.

