

CEFL-TERA

CW ERBIUM FIBER LASER , TERAHERTZ LINEWIDTH



1.5 μm



1532,1535, 1550 nm operating wavelength,
Output power up to 30W,
...

CEFL-TERA is CW Erbium fiber laser delivering up to 30 W in random or linear polarization. This laser is a perfect tool for wide range of applications. It offers a cost effective and no maintenance solution.

This erbium fiber laser is useful for optical components testing, spectroscopy, OPO pumping or thulium laser pumping. Lumibird original conception allows proposing a cost-effective fiber laser.

Lumibird integrates standard and proven optical components reducing the FIT rate for a high MTBF value.

The laser is available in random or linear polarization and delivers a perfect diffraction limited beam with a linewidth of a few nm. Furthermore, the central wavelength can be selected from 1532nm to 1550nm. Finally, the output power can be modulated with an external TTL signal up to 10kHz.

This erbium fiber laser is available in a turn-key benchtop which can be monitored from the front panel or via RS232. Also, this fiber laser meets superior wall-plug efficiency of 10%.

No maintenance is needed for this high-quality fiber laser. Additionally, no installation is required, plug it, run it and forget it.

Key features

- 1532,1535, 1550 nm operating wavelength
- Output power up to 30W
- Linewidth of a few nm
- Diffraction limited output
- Amplitude modulation (optional)
- Random or linear polarization
- High wall-plug efficiency
- Maintenance free

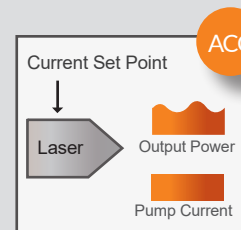
What applications

- Optical component testing
- Laser trapping spectroscopy
- Medical (dermatology)
- Heating
- OPO and Thulium fiber pumping

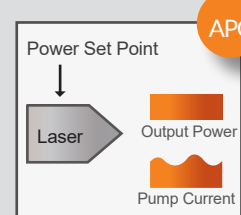


Modes of operation

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.

CEFL-TERA

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Optical Specifications @ 25 °C	CEFL-TERA
Mode of operation	CW or modulation
Output power	From 1 to 30 W
Operating wavelength	1532 +/-1 nm, 1535 +/-1 nm or 1550 +/- 5nm
Linewidth (FWHM)	< 1 nm
Output power stability over 1 hour	< 2 % rms
Polarization	Random or Linear
Beam quality, M ²	< 1.1
Amplitude modulation	Option
Output power monitor and APC	Option
Fiber type	SM/PANDA
Output termination	FC/APC or Collimator

The CEFL-TERA lasers are available as turn-key benchtop or as OEM module (up to 2 W)

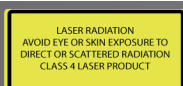
RELIABILITY

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.

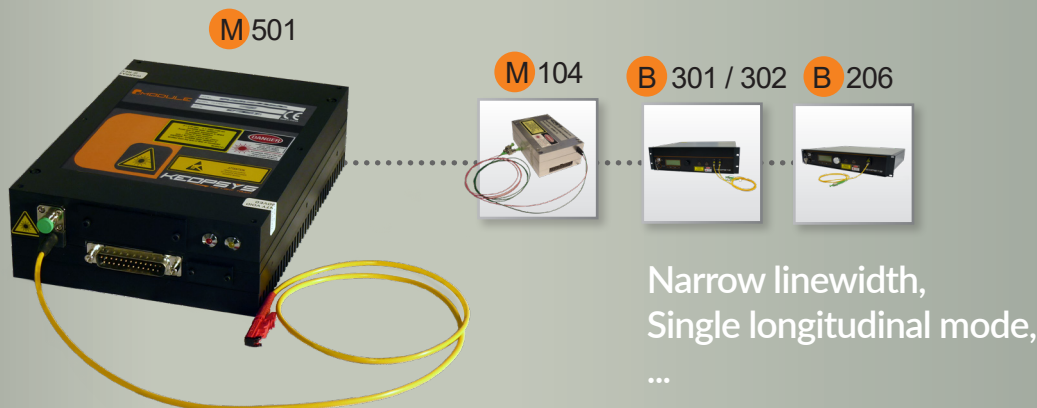


CEFL-KILO

CONTINUOUS WAVE ERBIUM FIBER LASER



1.5 μm



The CEFL-KILO series (Continuous Erbium-doped fiber amplifier) are designed for continuous wave operations in the 1.5 μm range.

The lasers are single frequency fiber lasers specially designed for applications which require a high precision such as LIDAR, atomic spectroscopy, or atom cooling. The MOPA system provides low RIN and high power.

With no maintenance, these fiber lasers offer comfort and accuracy.

The single frequency fiber system integrates several isolators to ensure stability and security versus backlight reflection.

CEFL-KILO series are available from 1 to 15W CW of output power with an ultra narrow linewidth (down to 1kHz).

The single frequency fiber laser can be thermally tuned in wavelength, and its central emission line can be modulated for locking purposes.

CEFL-KILO is available in EOM module for integration applications or user-friendly benchtop for laboratories experiences.

The CEFL-KILO fiber laser is manufactured according a production process which ensures to all lasers a perfect reproducibility of performances and a high level of reliability. Lumibird integrates standard and proven components for a high global MTBF value.

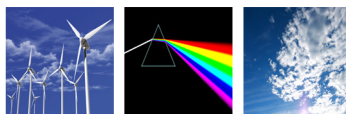
Finally, the fiber laser does not need specific installation. However Lumibird will offer free support to its first start on request.

Key features

- Narrow linewidth
- Single longitudinal mode
- Operating wavelength from 1545 to 1565 nm
- Output power up to 15 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
- Request pricing

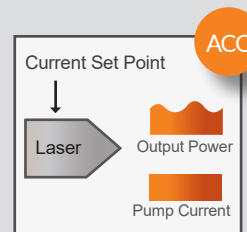
What applications

- LIDAR
- Acoustic or seismic sensing
- Atom cooling,
- Atomic spectroscopy
- Optical tweezing

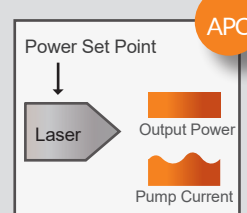


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Optical Specifications @ 25 °C

CEFL-KILO	
Mode of operation	CW
Output power	From 1 to 15 W
Standard operating wavelength	1555 +/-10 nm
Wavelength stability over 1 hour, +/- 1 °C	+/- 0.5 pm for grades 1 to 5
Wavelength thermal tuning range (option WT)	> 30 pm for grades 1 to 4, 1000 pm for grade 5
Laser frequency modulation range (option FM)	100 to 200 MHz (at 10 kHz, input analog voltage -4 V to +4 V) for grades 1 to 4
2 GHz (at 500 Hz, input analog voltage 0 to 200 V) for grade 5	+/- 0.5 dB typ., +/-0.75 dB max
Laser frequency modulation bandwidth	DC to 100 kHz (input analog voltage -4 to +4 V) for grades 1 to 4
DC to 20 kHz (input voltage 0 to 200 V) for grade 5	Yes
Spectral linewidth	3, 5, 15 and 50 KHz (measured at -20 dBm and fitted with a Lorentzian model)
Polarization	Random (RP) or linear (LP, 17 dB PER)
Seed Tap (option ST)	1 m long fiber for benchtop and mating sleeve for module (FC/APC), SMF for RP, PANDA for LP
Output monitor and APC (option OM)	Internal photodiode and automatic power control mode
Fiber type	1 m long fiber, SMF/PANDA
Beam quality, M ²	< 1.1
Output termination	FC/APC, E2PS or Collimator

The CEFL-KILO lasers are available as benchtop or as OEM module (up to 2 W)

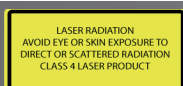
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