CYFL-GIGA

CW Ytterbium Fiber Laser with gigahertz linewidth

KEOPSYS BY LUMIBIRD

B342

B241

MAIN FEATURES

- 1083 nm operating wavelength
- Output power up to 20 W
- 2 GHz linewidth
- Wavelength tuning from 1082.7 to 1084.0 nm
- Polarization-maintaining fiber
- OSNR > 50 dB
- Diffraction limited output
- Robust and reliable
- Turn-key system

MAIN APPLICATIONS

- **HELIUM PUMPING**
- **ABSORPTION SPECTROSCOPY**
- **NUCLEAR PHYSICS**
- **MEDICAL IMAGING**

CYFL-GIGA series are Ytterbium-doped fiber lasers emitting at 1083 nm. These lasers are specially designed for helium pumping applications.

Optical imaging for medical applications, study of the helium spin in the nuclear field, absorption spectroscopy and nuclear physics are among the large list of applications with this fiber laser.

Designed in collaboration with a university, CYFL-GIGA lasers have a typical linewidth of 2 GHz, with wavelength tunability from 1082.7 to 1084.0 nm, enabling high pumping efficiency of helium gas absorption lines.
These lasers are available up to 20 W with polarization-maintaining fiber.

The lasers are available in turn-key benchtops which offer the possibility to control the laser via the front panel or remotely via serial USB and Ethernet ports.

www.keopsys.com

Many options and configurations are available. Please contact Lumibird to find the best match for your needs and compatibility between options.

CYFL-GIGA

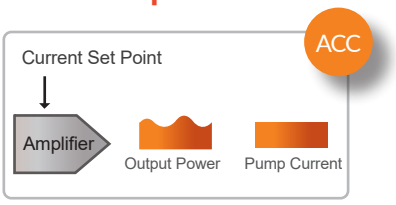
CW Ytterbium Fiber Laser with gigahertz linewidth

KEOPSYS BY LUMIBIRD

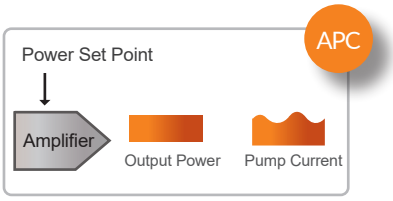
SPECIFICATIONS

	CYFL-GIGA
Mode of operation	CW
Output power (W)	From 5 to 20
Operating wavelength (nm)	1083
Wavelength stability over 1 hour, +/-1 °C (pm)	10
Linewidth (GHz)	2
Wavelength thermal tuning range, WT option (nm)	From 1082.7 to 1084.0
Polarization	Linear (PER > 17 dB)
Output power monitoring	Optional, depending on the model
Control mode	ACC, APC if available
Output power stability over 1 hour (% rms)	< 2
Output termination	FC/APC or collimator
Beam quality, M^2	< 1.1 or < 1.3 (depending on the model)

Mode of operation



ACC (Automatic Current Control)



APC (Automatic Power Control)

EASY TO USE !

Front panel control

· User-friendly benchtop with dial and front panel display for easy control and monitoring of the product

Remote control

- USB port and command set provided
- Web server, Telnet, SSH protocols

Reliability

ISO 9001:2015

All our fiber lasers and fiber amplifiers are manufactured according to our ISO certified quality management system, which places the needs and values of customers and partners at the heart of our organization. Throughout the manufacturing process, our components and systems are subjected to rigorous tests and inspections, which guarantees their robustness and reliability in the most demanding environments. Countless units operate continuously without maintenance around the world. The ISO 9001 certificates can be downloaded from our website.

LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION
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CYFL-KILO

CW Ytterbium Fiber Laser with kilohertz linewidth

B240

B340

MAIN FEATURES

- Narrow linewidth
- Single frequency laser
- 1064 nm operating wavelength
- Output power up to 20 W
- Ultra low phase noise and RIN
- OSNR > 50 dB
- Wavelength tunability (optional)
- Laser frequency modulation (optional)
- Linear polarization
- Maintenance free
- Turn-key operation

MAIN APPLICATIONS

- QUANTUM OPTICS SUCH AS BOSE-EINSTEIN CONDENSATE
- OPTICAL TWEEZING
- ATOMIC LASER INTERFEROMETRY
- FORMATION OF COLD MOLECULES
- NONLINEAR OPTICS (SHG, OPO)
- METROLOGY

CYFL-KILO are low RIN continuous lasers with ultra narrow linewidth seeder (< 15 kHz) that deliver up to 20 W at 1064 nm.

They are specially designed for high-precision applications such as interferometry, quantum optics, metrology, atom trapping. The high performance design of the CYFL-KILO lasers is based on a high stability laser diode which is amplified by fiber amplifier stages.
For the most demanding applications, these Ytterbium fiber lasers can be thermally and current tuned to be locked on an absorption line, which is required in atomic spectroscopy and atom cooling.

CYFL-KILO are available in user-friendly benchtops. These platforms offer the possibility to control the laser via the front panel or remotely via serial USB and Ethernet ports. They offer robustness and reliability.

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CYFL-KILO

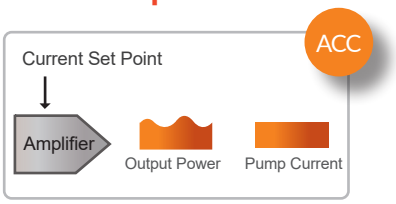
CW Ytterbium Fiber Laser with kilohertz linewidth

KEOPSYS BY LUMIBIRD

SPECIFICATIONS

	CYFL-KILO
Mode of operation	CW
Output power (W)	From 2 to 20
Operating wavelength (nm)	1064
Wavelength stability over 1 hour, +/-1 °C (MHz)	+/-15 (for all grades)
Linewidth (kHz)	< 15 (G1) or < 20 (G2)
Wavelength thermal tuning range, WT option (pm)	20 (G1) or +/- 240 (G2)
Laser frequency modulation range, FM option	> 200 MHz (G1) or 10 GHz (G2)
Laser frequency modulation bandwidth	DC - 100 kHz (G1) or DC - 20 kHz (G2)
Polarization	Linear (PER > 17 dB)
Output power monitoring	Optional depending on the model
Output termination	FC/APC or collimator
Beam quality, M^2	< 1.1 or < 1.3

Mode of operation



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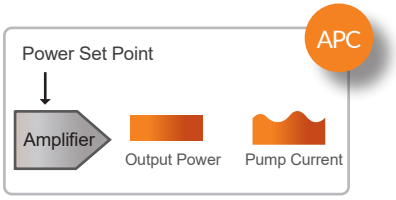

APC (Automatic Power Control)

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Remote control

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Reliability

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CYFL-MEGA

CW Ytterbium Fiber Laser with megahertz linewidth

B340

MAIN FEATURES

- Narrow linewidth of a few of MHz
- 1064 nm standard operating wavelength
- Output power up to 20 W
- Wavelength tunability (optional)
- Laser frequency modulation (optional)
- OSNR > 50 dB
- Linear polarization
- Maintenance free

MAIN APPLICATIONS

- **INTERFEROMETRY**
- **ATOMIC SPECTROSCOPY**
- **SECOND HARMONIC GENERATION (SHG)**
- **OPTICAL COMPONENT TESTING**

CYFL-MEGA are CW Ytterbium fiber lasers that deliver a linewidth of a few MHz up to 20 W of output power at 1064 nm.

These lasers are specially designed for applications such as interferometry, optical pumping, second harmonic generation, metrology or optical component testing.
Solutions are provided with polarization-maintaining fibers.

CYFL-MEGA is available in user-friendly benchtop.
This platform offers the possibility to control the laser via the front panel or remotely via serial USB and Ethernet ports. It offers robustness and reliability.
Additionally, no installation is required: just plug it and run it.

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CYFL-MEGA

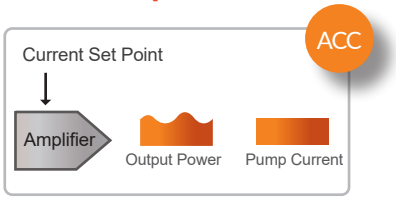
CW Ytterbium Fiber Laser with megahertz linewidth

KEOPSYS BY LUMIBIRD

SPECIFICATIONS

	CYFL-MEGA
Mode of operation	CW
Output power (W)	From 5 to 20
Operating wavelength (nm)	1064
Wavelength stability over 1 hour, +/-1 °C (pm)	10
Linewidth (MHz)	< 20 (10 typical)
Wavelength thermal tuning range, WT option (nm)	1.5
Laser frequency modulation range, FM option (pm)	30 (at 1 kHz)
Laser frequency modulation bandwidth	DC - 1 kHz
Polarization	Linear (PER > 17 dB)
Seed tap (ST option)	1 m long fiber, PANDA 980
Output power monitoring	Optional, depending on the model
Output termination	FC/APC or collimator
Beam quality, M^2	< 1.3

Mode of operation



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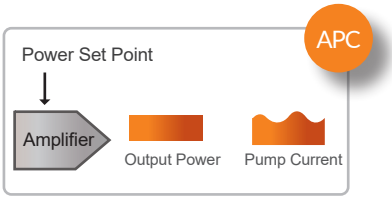

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