

Luna-1050

Diode-pumped solid-state femtosecond laser



Luna-1050 is an ytterbium diode-pumped solid-state femtosecond laser. The Luna-1050 series includes three models configured to optimize the trade-off between average power and pulse duration. Robust DPSS technology, single-box water-stabilized optical head, and reliable self-starting mode locking ensure consistent long-term performance. Optional kinematic-coupling mounting system can be implemented to thermally isolate the laser head from the optical table. Short-pulse models with up to 16 nm FWHM bandwidth are available upon request.

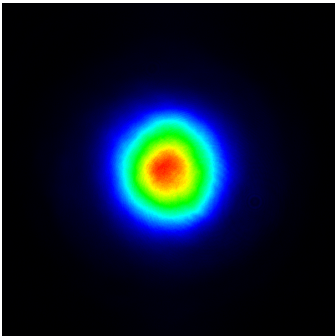
Specifications

	Luna-1050-3W	Luna-1050-5W	Luna-1050-7W
Average power	3 W	5 W	7 W
Spectral bandwidth (FWHM)	>10 nm	>8 nm	>7 nm
Pulse duration	<150 fs	<200 fs	<250 fs
Central wavelength	1050 ± 5 nm		
Pulse repetition rate	64 ± 5 MHz		
Long-term power stability	<0.5% (STD)		
Polarization	Linear, horizontal		
Beam diameter	1.1 ± 0.2 mm		
Beam quality	$M^2 < 1.2$		
Cooling	Closed-loop chiller		
Dimensions	Optical head, LxWxH: 530x185x120 mm; 15 kg		

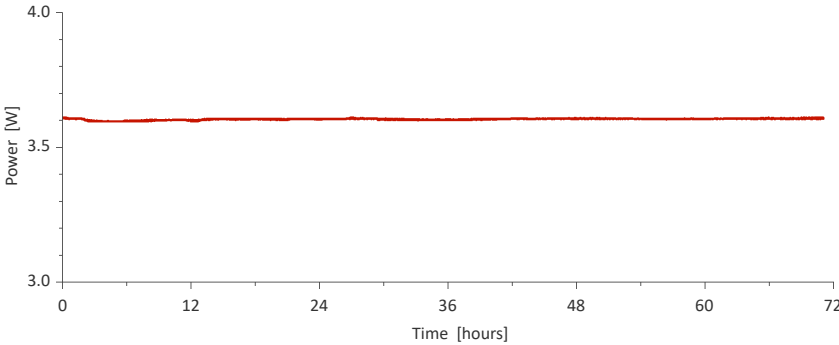
Applications

- Optogenetics and biophotonics
- Ultrafast imaging
- Multiphoton microscopy
- Two-photon polymerization
- Material processing
- Time-resolved spectroscopy
- THz and nonlinear optics
- Seed oscillator for amplifiers

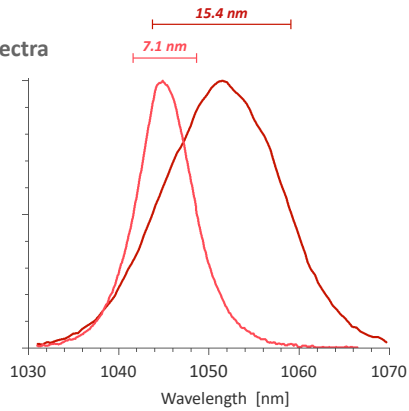
Beam (near field)



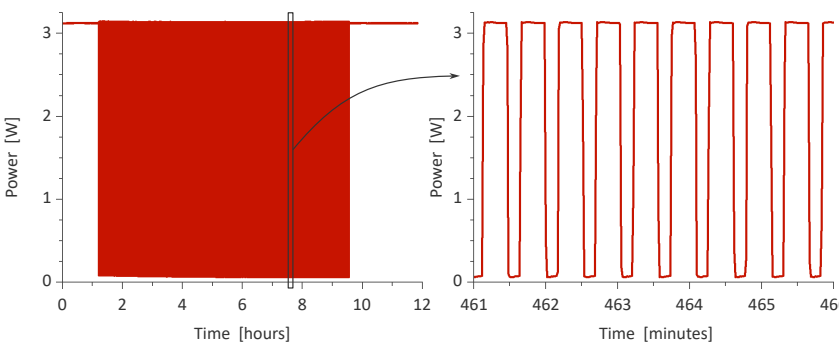
Long-term stability



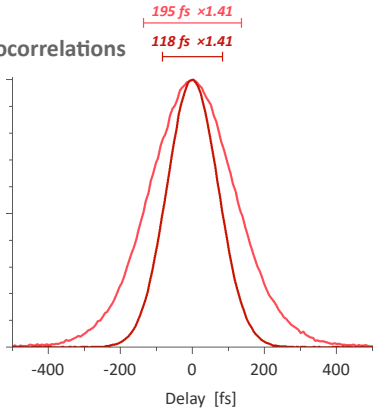
Spectra



Endurance: 1000 consecutive starts of mode-locked operation



Autocorrelations



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Dimensional drawing

Dimensions are in mm

