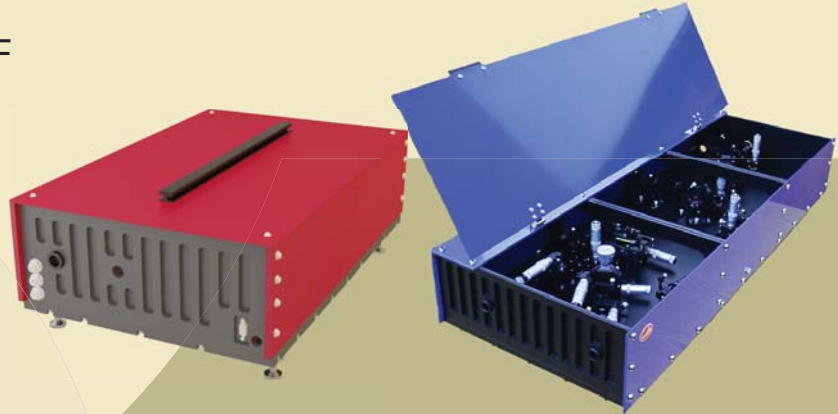


Femtosecond Solid-State Lasers



Cr:Forsterite Femtosecond Laser CrF

- Wavelength range: 1230-1270 nm
- Output power up to 800 mW
- Integrated pump source option
- Short pulse duration down to <35 fs
- Electromagnetic starter or SESAM models



CrF-65 femtosecond laser and LF-100 CW laser

Product overview

The CrF chromium-forsterite laser offers a unique active media that radiates femtosecond pulses around 1250 nm. The laser features integrated Peltier TC with control unit for crystal cooling to low temperatures for higher average power generation and precise temperature control. Two models of the laser feature SESAM self-starting with a fixed wavelength operation and one model with an electromagnetic starter offers wavelength tunability.

The CrF may include a built-in 10 or 15 W fiber pump laser and control unit. The 1250 nm region offers new horizons for microscopy or brain tissue studies where fs pulses conquer new heights each year. CW version of the CrF is available separately as the LF-100 laser.

The CrF laser can also be used as a seed oscillator for building high power Cr:F amplifiers also offered by our company.

Possible application of the Cr:F laser:

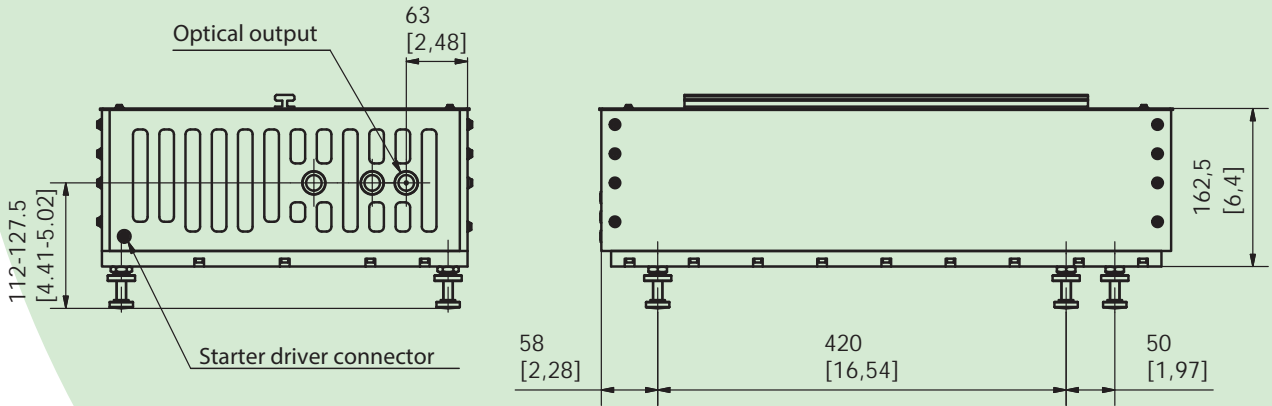
- Seed oscillator for amplifiers
- Multi-photon excitation microscopy
- Pump-probe spectroscopy
- Generation of terahertz radiation
- Time-resolved spectroscopy
- Optical coherent tomography

CrF technical specifications

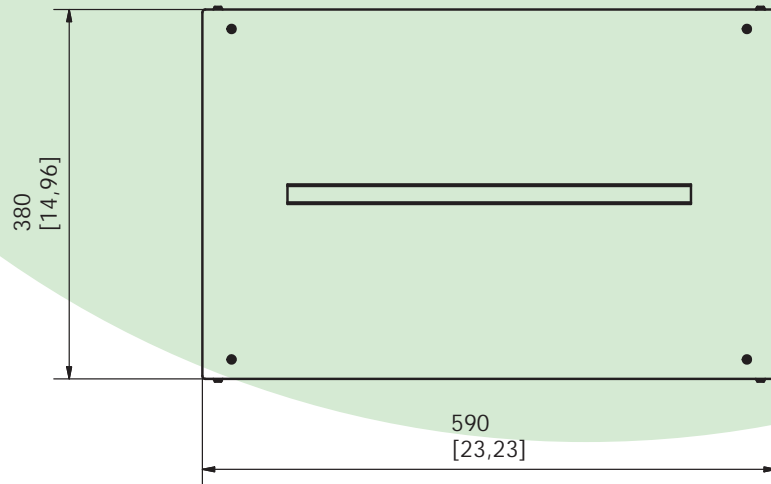
	CrF-450TP	CrF-400SP	CrF-700SP
Pulse width (FWHM)	<65* fs	<75 fs	
Wavelength range	1230-1270 nm (tunable)	1230-1270 nm (fixed)	
Output power (@1250 nm)	>450** mW	>400 mW	>700 mW
Built-in Yb fiber laser pump power	10 W	10 W	15 W
Repetition rate (typical)	96 MHz	95 MHz	
Starting of femtosecond operation	electric starter	self-starting (SESAM)	
Output stability, rms	<2%		
Spatial mode	TEM ₀₀		
Polarization, linear	horizontal		
Divergence	<2 mrad		
Crystal cooling	thermoelectric		

* - down to 35 fs possible upon request.

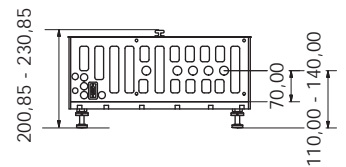
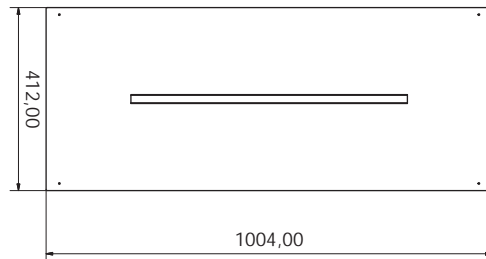
** - up to 800 mW is possible upon request with a high-power pump laser.



CrF - mm [inches]



	LF-100
Tuning range, nm	1210-1290
Output power, mW*	400*
Spatial mode	TEM ₀₀
Bandwidth, 1/cm	10
* - 10 W pump	



LF-100 - mm