

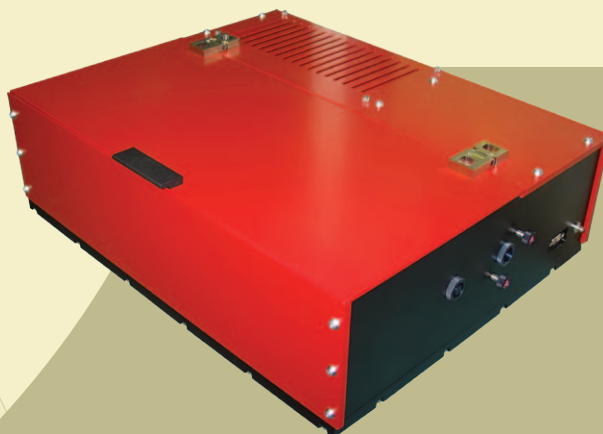


Femtosecond Solid-State Lasers



Ti:Sapphire Femtosecond Laser TiF-100

- Tuning range: 715-980 nm
- Pulse duration: <100 fs
- Output power up to 1.5 W (@10W pump laser)
- Thermostabilized main breadboard
- Motorized USB wavelength tuning
- Electromagnetic starter
- Tunable fs/CW switchable regimes (optional)



The TiF-100F Ti:Sapphire femtosecond laser with an integrated pump source

Product overview

The TiF-100 laser system offers the highest average power and the broadest tuning range in the TiF laser family. The unit is a flexible tool suitable for numerous applications and can really be a workhorse for many different projects going on simultaneously.

The system can be supplied in two basic configurations: the TiF-100, being a stand-alone version for pumping with an external pump laser; or the TiF-100F system which may be integrated with an industry-standard pump laser on site or at our factory. However, the dimensions of the Ti:S laser head are the same for either version, the stand-alone version may later be fitted with an integrated pump laser at minimum additional cost. The acceptable pump laser power for the TiF-100/TiF-100F is up to 10 Watts. See tuning curves in the datasheet for output power vs. wavelength dependence.

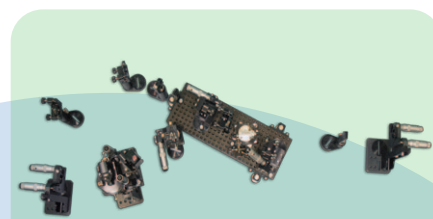
The system can also be equipped with an optional birefringent filter and optional etalons providing narrowband tunable CW regime over the whole tuning range.

An external prism pair or a tunable pulse compressor (model APC) for dispersion pre-compensation is also available.

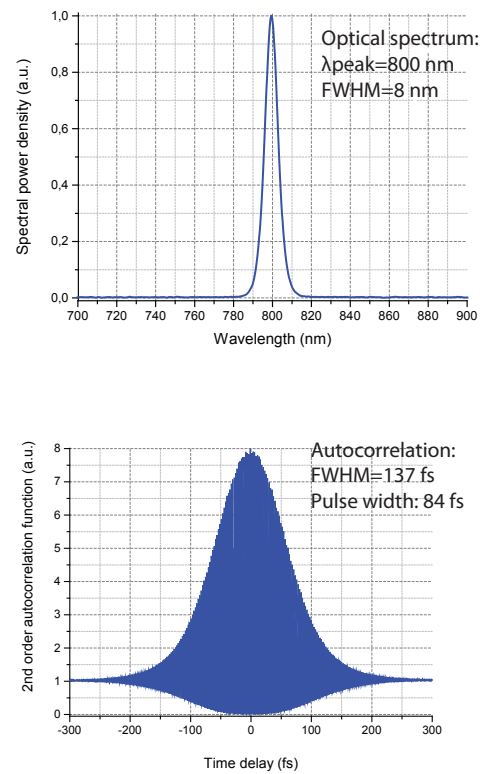
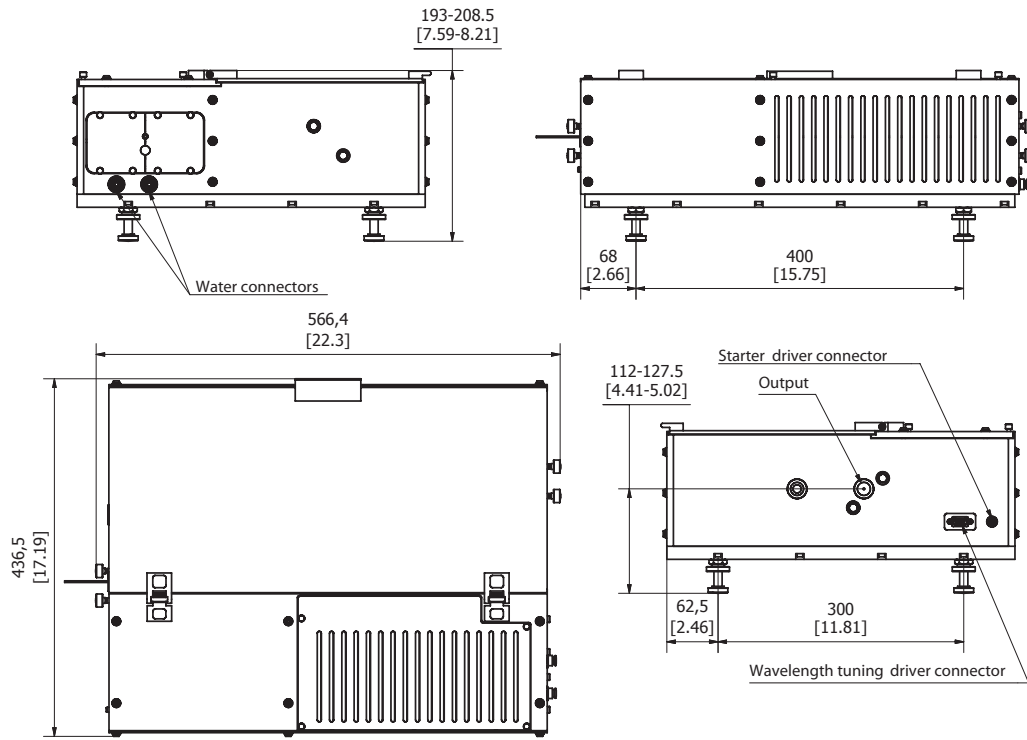
	TiF-100 (stand-alone) TiF-100F (integrated pump)
Output pulse duration	<100 fs
Spectrum width @ 800 nm	>8 nm
Central wavelength tuning (@10 W pump)	715-980 nm
Output power @ 800 nm	350 mW @ 3 W pump 1 W @ 7 W pump 1.5 W @ 10 W pump
Repetition rate	80 MHz
Max. pump power	10 W
Beam quality	TEM ₀₀
Polarization, linear	horizontal
Beam divergence	<1 mrad
Stability	<1% rms
Electronic starter	yes
Thermostabilized breadboard	yes
Dimensions	610x450x197 mm

Applications:

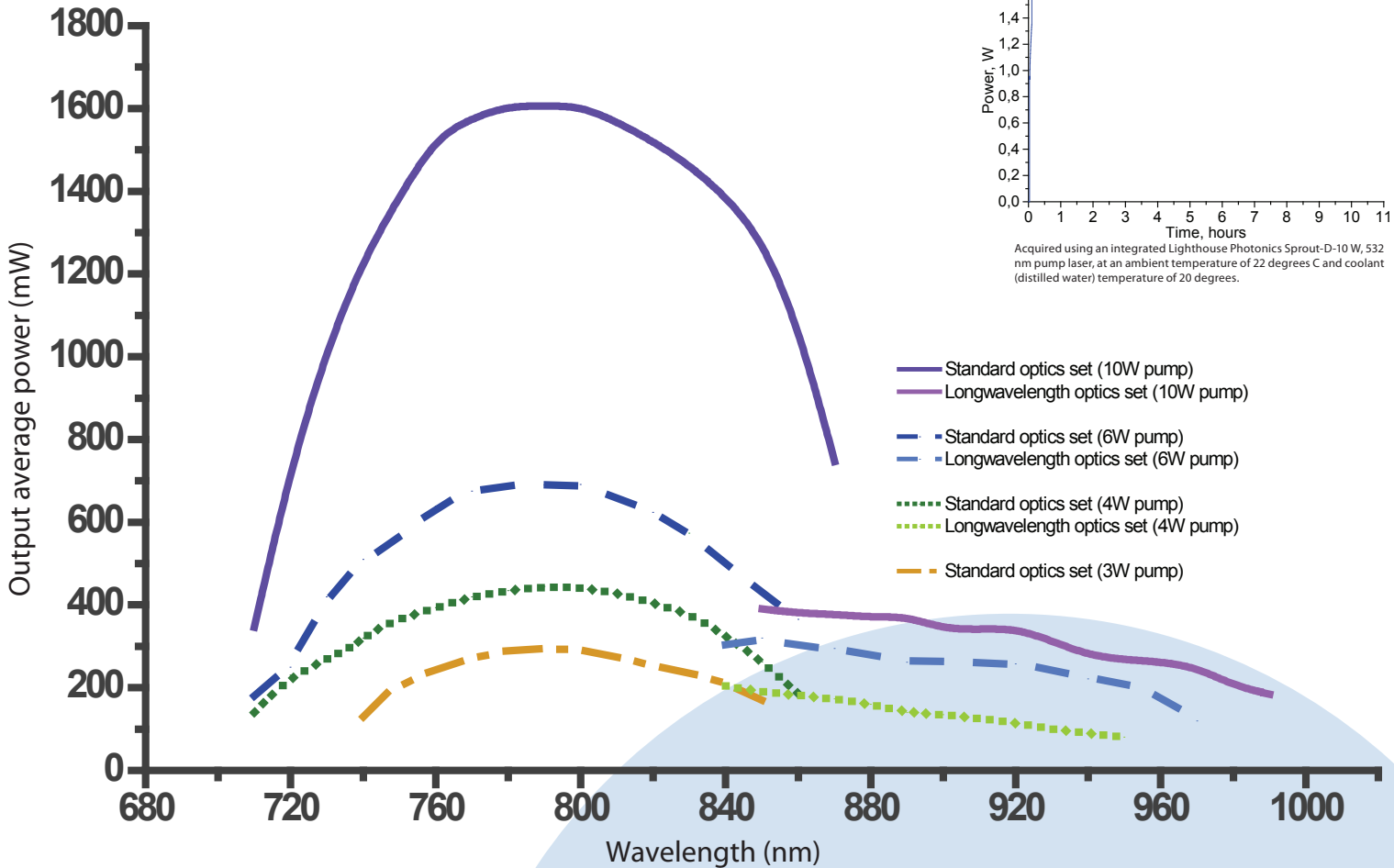
- Multiphoton microscopy
- Seed oscillator for amplifier systems
- Terahertz generation
- "Pump-probe" spectroscopy
- Material processing
- Optical coherent tomography



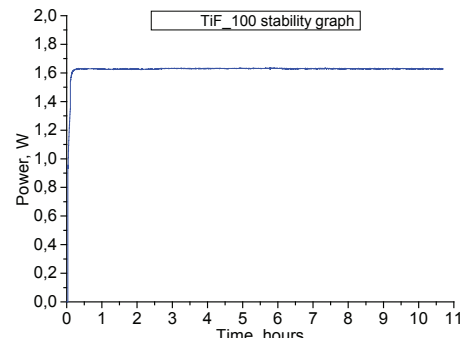
Ti:S and Cr:F kits are available. Please contact us for details.



TiF-100 / TiF-100F (mm [inches])



TiF-100 wavelength tuning curves



Acquired using an integrated Lighthouse Photonics Sprout-D-10 W, 532 nm pump laser, at an ambient temperature of 22 degrees C and coolant (distilled water) temperature of 20 degrees.