

Femtosecond Solid-State Lasers



Ti:Sapphire femtosecond laser with a pump source TiF-F

- Tuning range 710 - 970 nm
- Pulse duration <20 fs
- Output power up to 1.5 W (@10W pump laser, 100fs)
- Optional thermostabilized main breadboard
- Motorized USB wavelength tuning
- Electromagnetic starter



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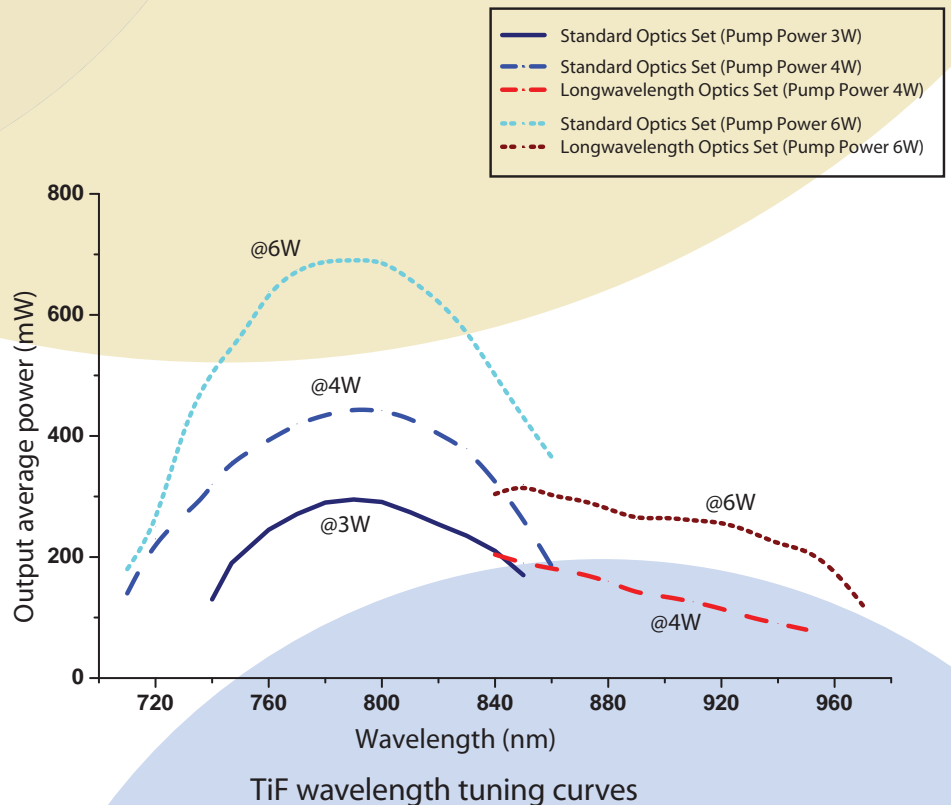
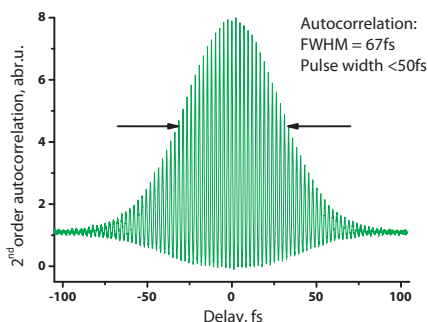
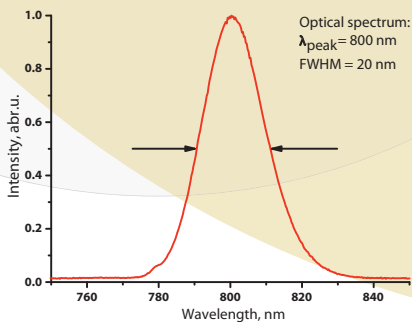
Product overview

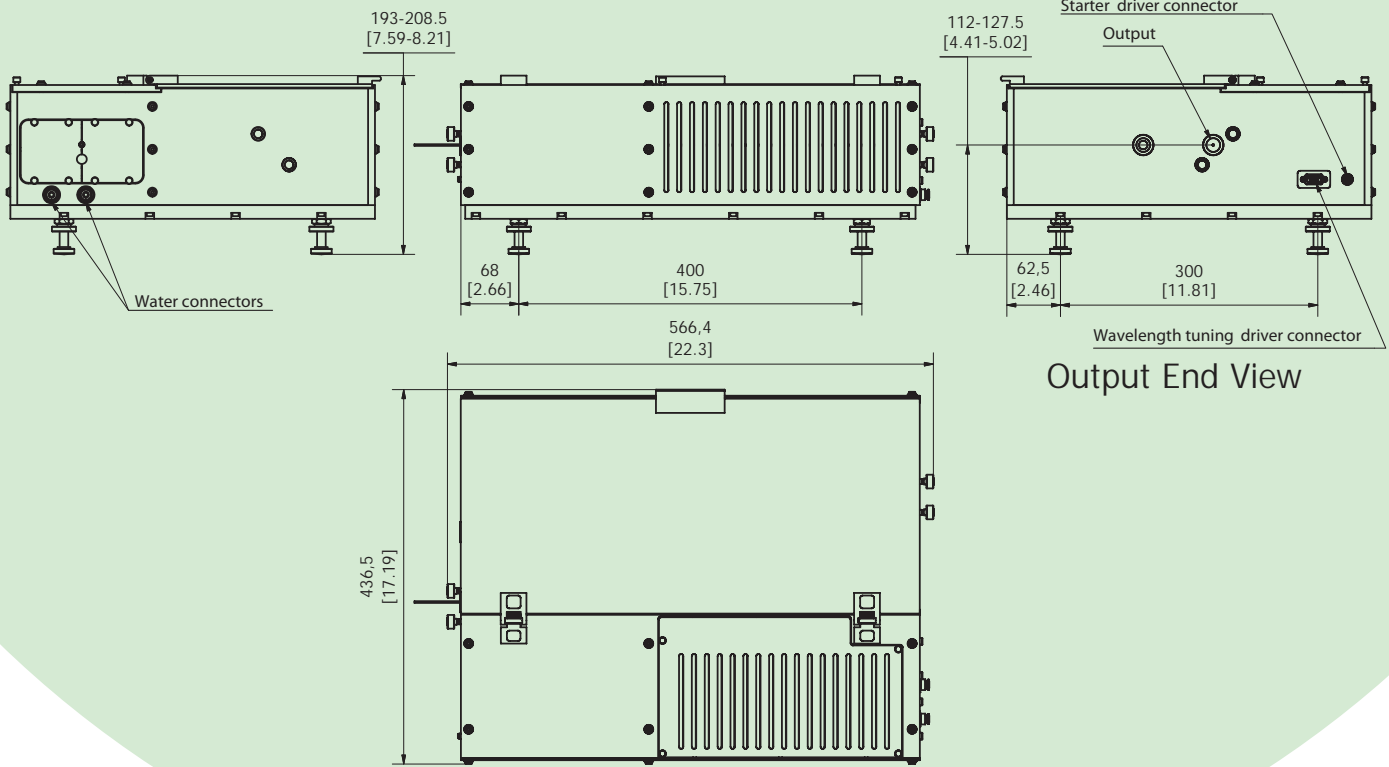
The TiF-F laser is based on the TiF-M design and inherits all its parameters and specifications. The built-in pump laser is integrated in the system and thermally stabilized. The pump laser is an OEM module and can be anywhere from 2 W to 10 W.

The TiF-F3 model includes the smaller Opus 3 OEM pump laser and may be good for starting a femtosecond project with restricted budget or adding femtosecond capability to your microscope with this cost-effective solution. Here is the tuning curve for the TiF-50F3 and laser stability graph for your reference.

Application:

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





TiF-F (mm [inches])

TiF-F technical specifications

	TiF-50F3	TiF-20F	TiF-50F	TiF-100F
Pulse duration, fs	<50	<20***	<50	<100
Tuning range, nm	740-850	780-840	740-910*	710-970*
Output power at 800 nm, mW	>300	>250-400*	>300-1000*	>300-1500*
Available pump power, W	3	4-6	3-8	3-10
Repetition rate, MHz	80**	80	80**	80**
Output stability, typical	<1% rms (view graph)			
Beam quality	TEM ₀₀			
Polarization, linear	horizontal			
Beam divergence	<2mrad			
Electronic starter	yes			
USB wavelength tuning	yes			
Thermostabilized breadboard	optional			
Dimensions, mm	567x437x193 (laser head); pump laser power supplies may vary in dimensions			
* - depends on pump power and mirror set (two mirror sets are required to cover the whole tuning range).				
** - repetition rate from 75 MHz to 120 MHz according to customer specification.				
*** - with external group velocity dispersion compensation.				