

Trestles Finesse

Ti:Sapphire Laser



Trestles Finesse is a tunable Ti:sapphire femtosecond laser source. The laser, which combines the Finesse diode-pumped laser with Trestles Mini Ti:sapphire oscillator, has an output power of more than 500 mW with 4 W pump and more that 700 mW power with 6 W pump. Trestles Finesse has a factory preinstalled pulsewidth between 50 fs and 100 fs at 800 nm. The laser has a standard tuning range of 700-850 nm; or 740 – 910 nm with blue optics set. Trestles mini can be easily customized for specific applications, such as multiphoton microscopy, CARS microscopy, time-resolved photoluminescence, non-linear spectroscopy, optical coherence tomography, terahertz imaging and spectroscopy, materials processing, nanophotonics, amplifier seeding, and many others.

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MAIN PARAMETERS

Tuning range:	740-910 nm; or 700-850 nm
Pump power:	4W or 6W
Output power (4W):	up to 500 mW
Output power (6 W):	up to 700 mW
Beam quality:	TEM ₀₀
Polarization:	linear horizontal
Pulse duration :	50 fs;100 fs

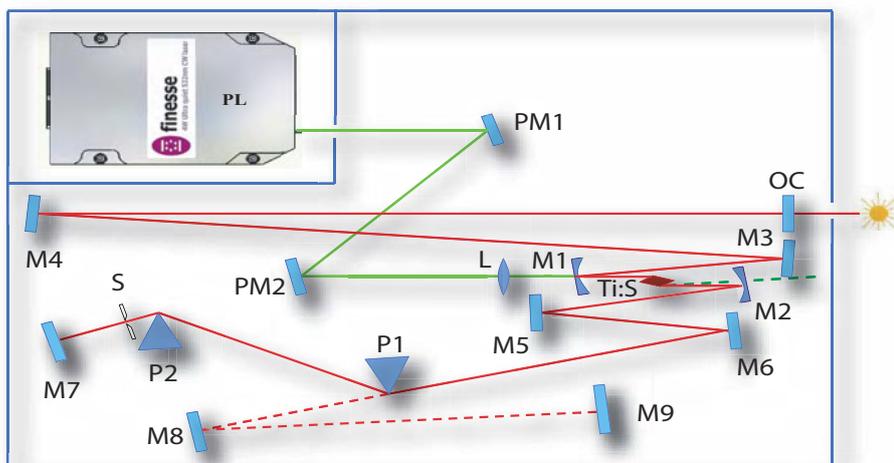
Wavelength tuning provided by motorized USB-controlled tuning slit

Option: Electromagnetic starter

PUMP LASER PARAMETERS

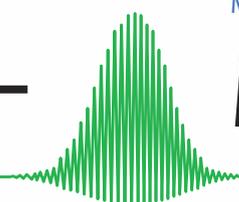
Power:	>4 Watts; >6 Watts
Wavelength:	532 nm
Beam size:	2.3 mm
Spatial mode:	TEM ₀₀
Bandwidth:	50 GHz
Divergence:	0.4 mrad
M squared:	< 1.1
Power stability:	< 1.0 % RMS
Noise:	< 0.5 % RMS
Noise bandwidth:	1 Hz - 6 MHz
Polarization direction:	horizontal

Optical Scheme



PL- pump laser; PMn- pump beam mirrors; L- focusing lens; M1, M2- spherical mirrors; M3, M4, M5, M6, M7, M8, M9- cavity mirrors

DEL

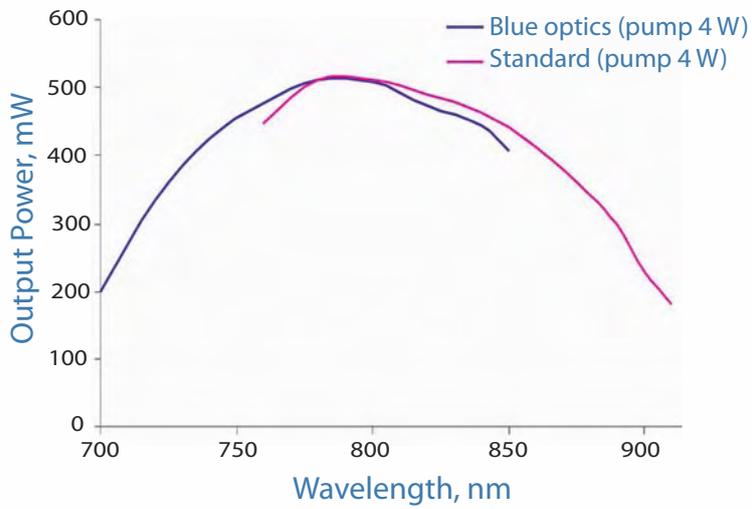


MAR PHOTONICS

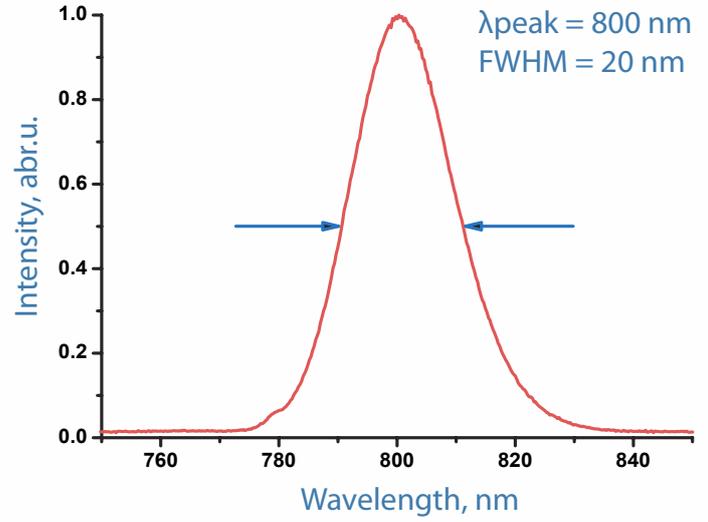
www.dmpotonics.com



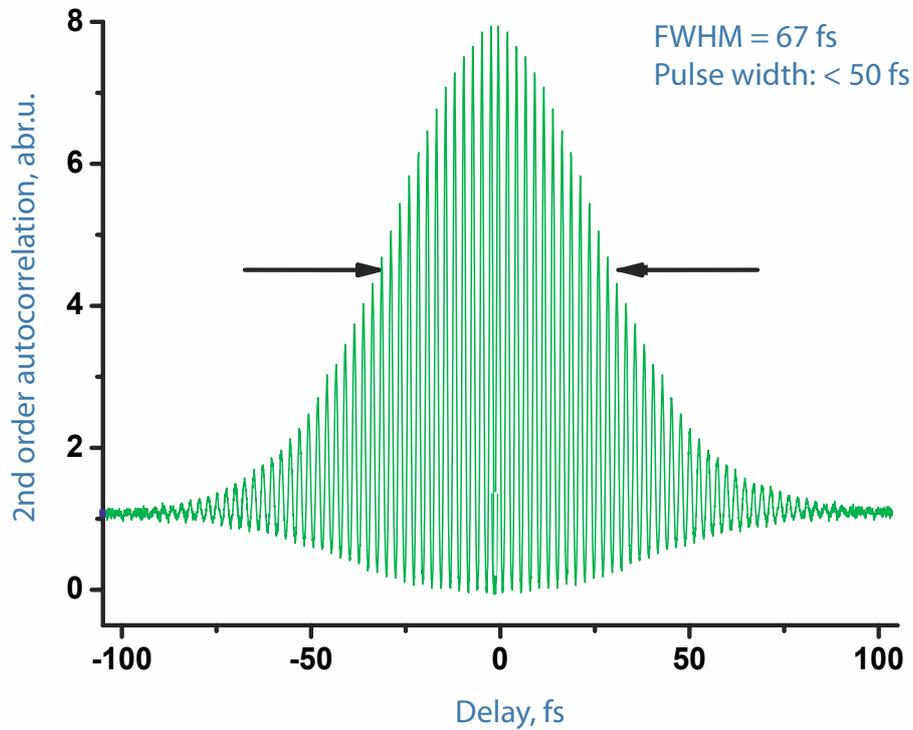
Tuning Curve

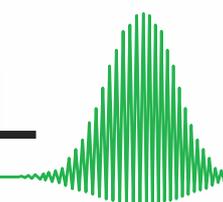


Optical spectrum



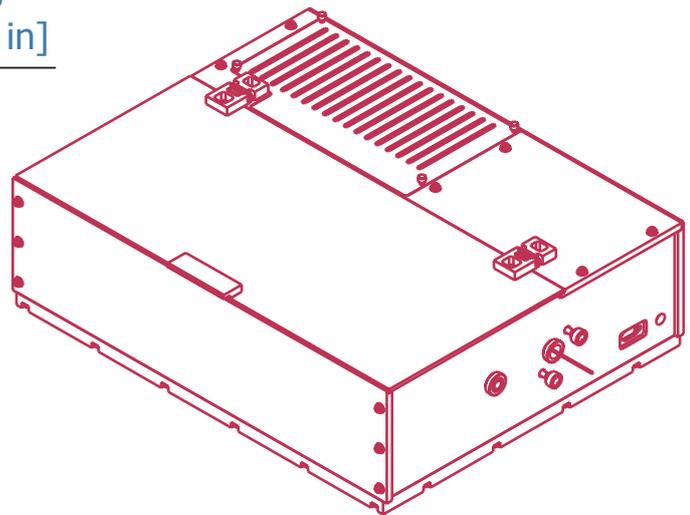
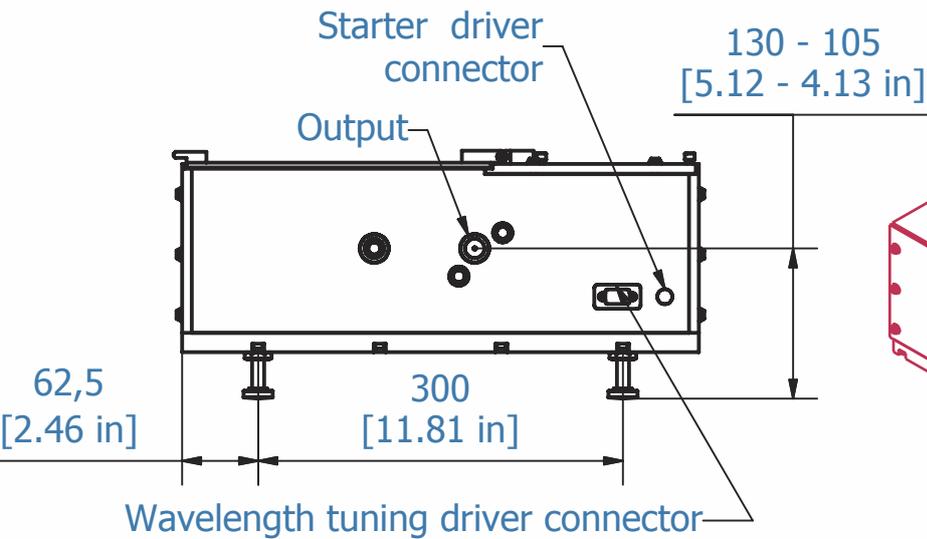
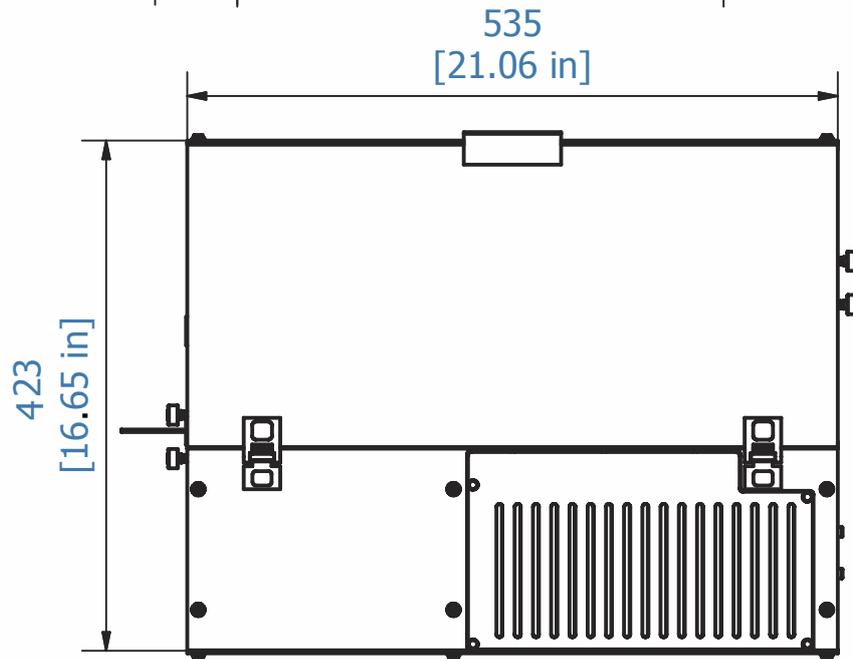
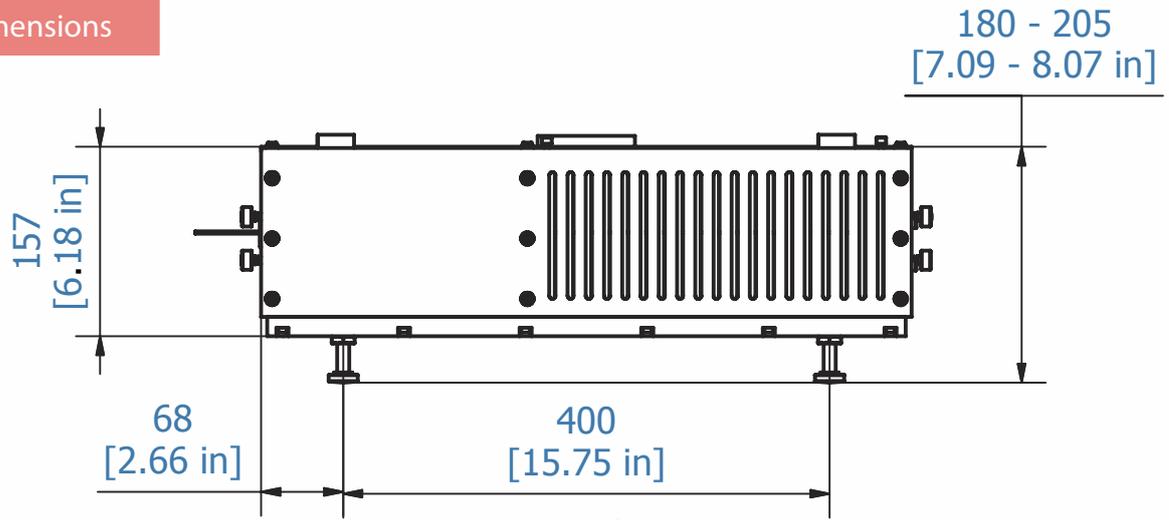
Autocorrelation

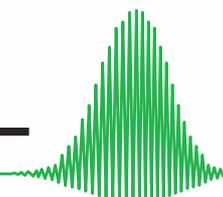


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Dimensions



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