



Femtosecond Solid-State Lasers



TeMa Yb Femtosecond Laser

- Output power >2.7 W
- Short pulse duration <100 fs
- Small footprint
- Integrated pump source
- Highly stable
- Self-starting of femtosecond regime



TeMa femtosecond laser with its control unit

Product overview

The Yb-doped TeMa laser radiates at  $1048 \pm 5$  nm with more than 2.7 W of average power available, and that enables the end user to enjoy Ti:S-like power rate at over-micron wavelengths. This new design from Avesta's engineers features integrated pump diode module for greater system stability and turn-key operation. The solid-bulk body of the laser ensures maximum rigidity, while self-starting design provides for easy "plug-and-play" operation.

Possible application of the TeMa laser:

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

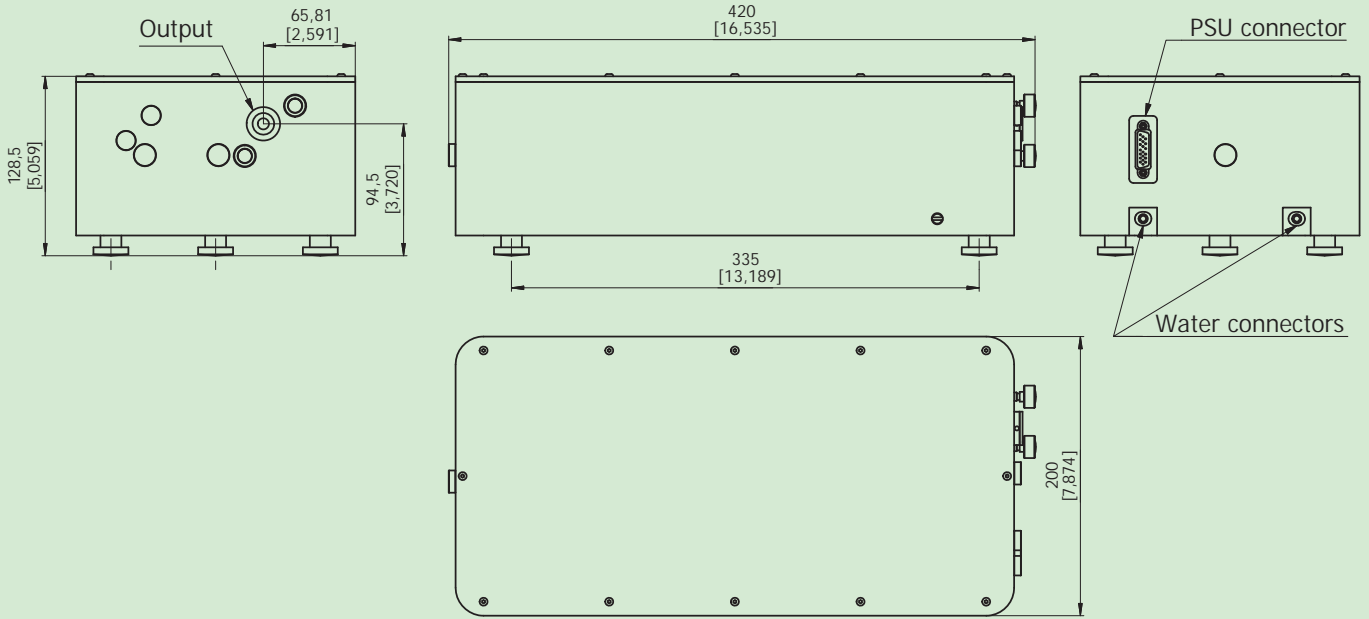
TeMa technical specifications

	TeMa
Pulse duration (FWHM), fs	<100
Wavelength (fixed), nm	$1048 \pm 5$
Output power, W*	>2.7
Output power, W** @ $524 \pm 2$ nm	>1.3
Repetition rate, MHz*	70
Pulse energy, nJ*	>35
Output power stability***	$\pm 1\%$ rms
Spatial mode	TEM <sub>00</sub>
Polarization, linear	>100:1 (horizontal)
Laser head dimensions, mm	410x200x128
Power supply dimensions, mm	290x200x80

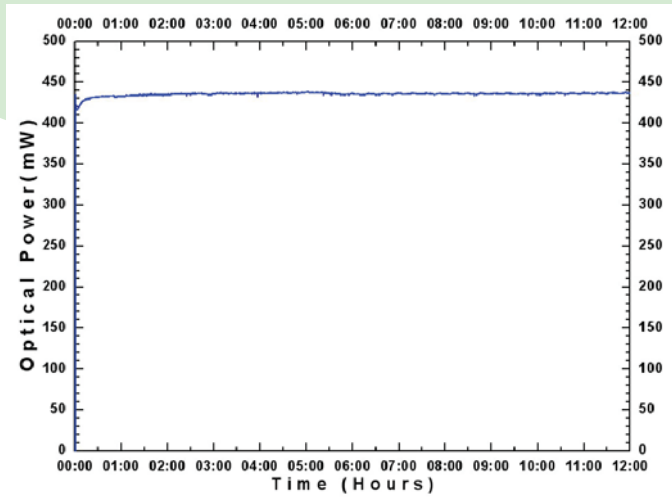
\* - custom values available upon request

\*\* - with optional SHG extension

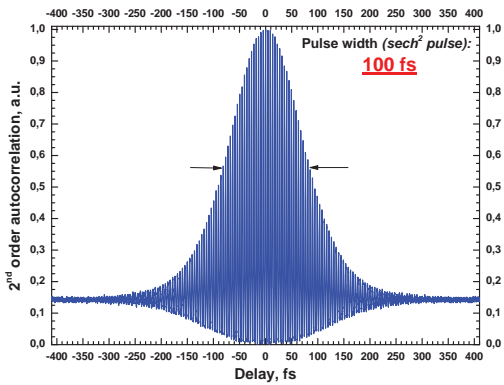
\*\*\* - at equal room conditions over 12 hours after 30 minutes of warm-up



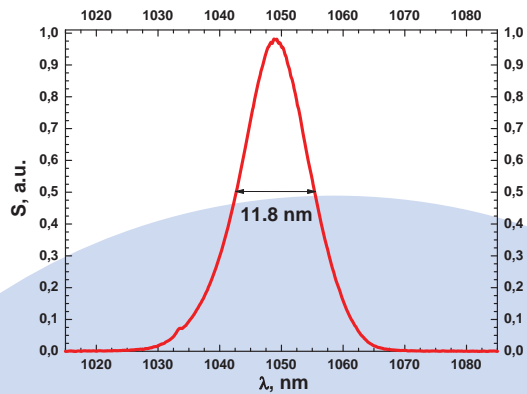
TeMa - mm [inches]



TeMa stability graph



TeMa autocorrelation trace



TeMa typical generation spectrum