



Femtosecond Solid-State Lasers



TeMa Yb Femtosecond Laser

- Output power >1.6 W
- Short pulse duration <100 fs
- Small footprint
- Integrated pump source
- Highly stable
- Self-starting of femtosecond regime



TeMa-1058 femtosecond laser with its control unit

Product overview

The Yb-doped TeMa-1058 laser radiates at 1058 ± 2 nm with more than 1.6 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

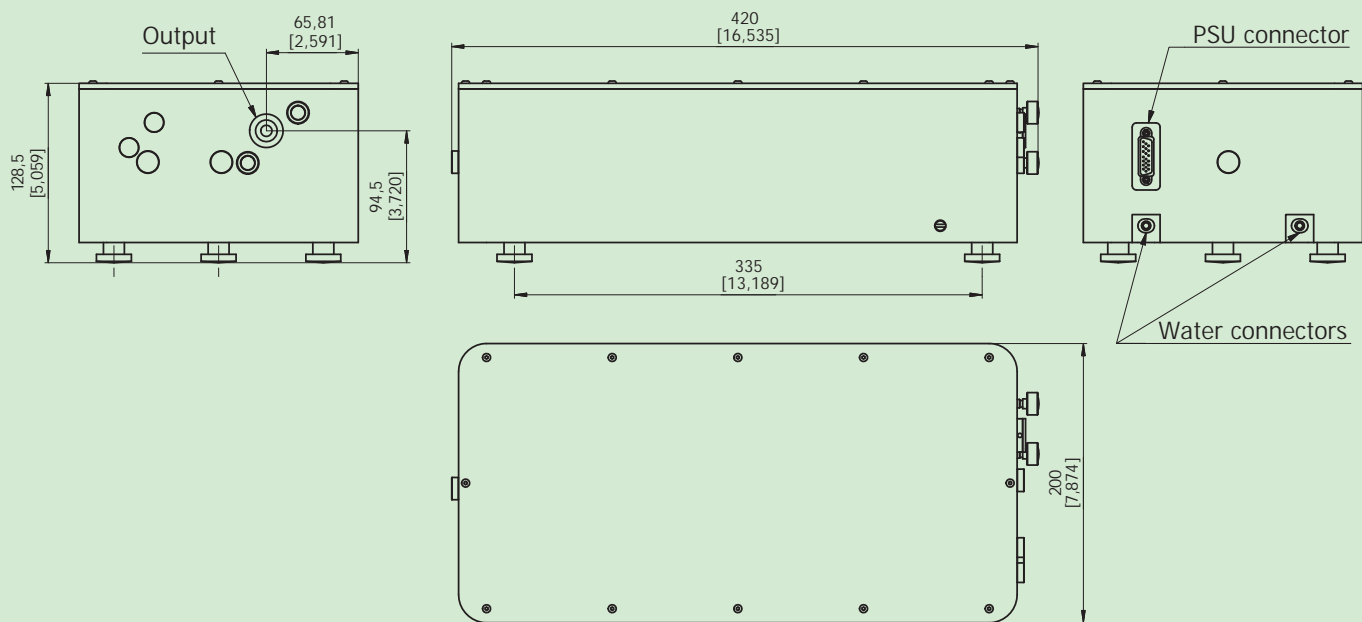
TeMa technical specifications

	TeMa-1058/100
Pulse duration (FWHM), fs	<100
Wavelength, nm	1058 ± 2
Output power, mW*	>1600
Output power, mW*** @ 529 ± 1 nm	>700
Repetition rate, MHz	70*
Pulse energy, nJ	>22
Output power stability**	$\pm 1\%$ rms
Spatial mode	TEM ₀₀
Polarization, linear	>100:1 (horizontal)
Laser head dimensions, mm	420x200x128
Power supply dimensions, mm	290x125x260

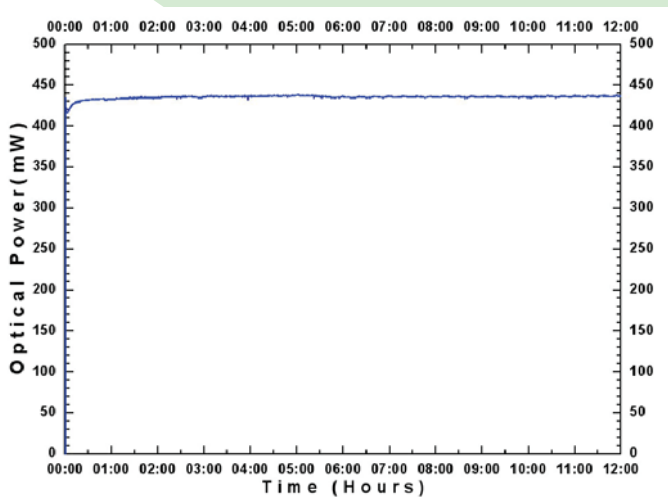
* - custom values available upon request

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

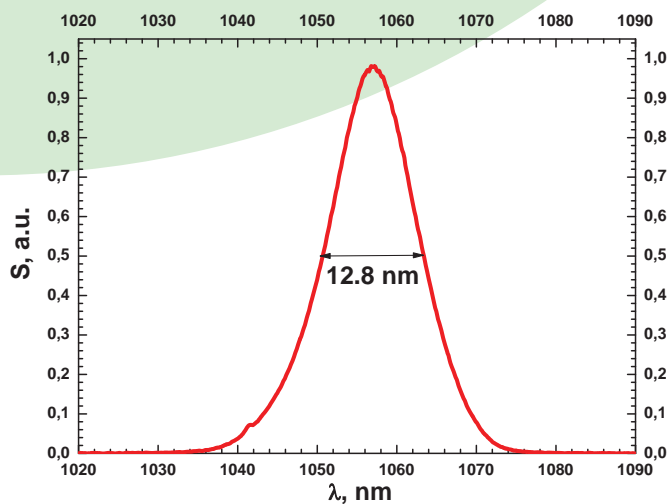
*** - with optional SHG extension



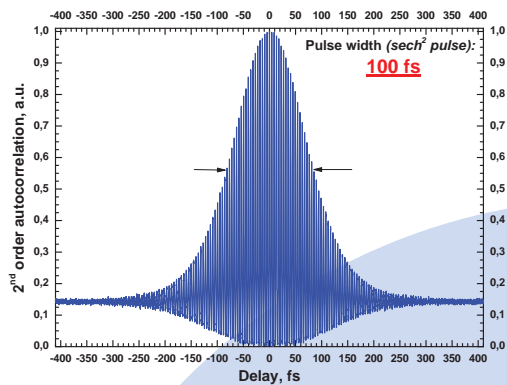
TeMa - mm [inches]



TeMa stability graph



TeMa typical generation spectrum



TeMa autocorrelation trace