

PICOSECOND TUNEABLE OPO LASER SYSTEM

PXT100

The PXT100 is the advanced tuneable source of laser radiation with ultra-short pulse duration by SOLAR LS.



The PXT100 laser system combining a picosecond DPSS pump laser and synchronously pumped widely tuneable optical parametric oscillator in one compact housing was developed specially for scientists dealing with multi-colour excitation experiments, such as, for example, SRS (Stimulated Raman Scattering), or CARS (Coherent Antistokes Raman Scattering).

The picosecond DPSS pump laser provides high peak power laser pulses and pulse repetition rate up to 75 MHz. The OPO optical scheme with optimised system for narrowing output linewidth ensures tuneable radiation with high spectral brightness and high contrast. At the same time the PXT100 system provides unprecedentedly wide tuning range. Several ports for simultaneous output of laser radiation in different spectral ranges as well as a separate output for residual 532 nm pump beam expand the opportunities for your experiments and make you work more comfortable.

The PXT100 laser system has a number of unique design features that significantly increase both the laser life and uptime:

- Integrated dustproof design of the PXT100 guarantees excellent long-term output power stability and requires little maintenance;
- Correct positioning of all the movable components is ensured by high-precision step-motor-based modules and electronics;
- Wavelength selection and control of the wavelength tuning is ensured by user-friendly software.

All these make the PXT100 a very convenient and easy-to-use instrument not requiring from you to be a laser expert to operate it. As a result, you can concentrate on your experiments and do not worry that you are using a high-tech device.

FEATURES

- 690-990 & 1150-2200 nm tuning range
- Up to 0.4 W tuneable output at 6 ps
- Integrated DPSS pump laser
- Fully automated wavelength tuning
- 3 separate ports for signal/idler/pump beams output
- Output wavelength monitoring (optional)
- PC control via USB/RS232
- Small footprint

APPLICATIONS

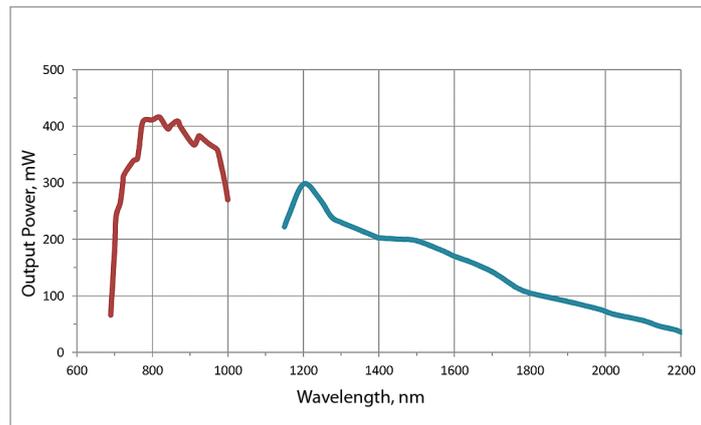
- CARS microscopy and spectroscopy
- Two-photon fluorescence microscopy
- Second harmonic generation microscopy
- Laser induced fluorescence microscopy
- Infrared spectroscopy

SPECIFICATIONS *

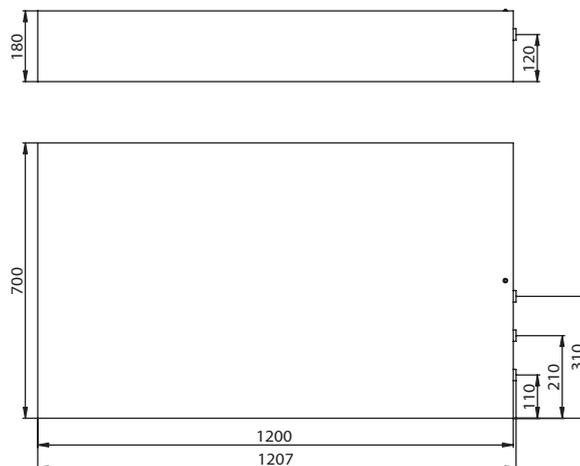
Model		PXT100
Pulse repetition rate, MHz		80 ± 5
Tuning range, nm	signal	690-990
	idler	1150-2200
Output power ¹⁾ , mW		400
Linewidth ¹⁾ , cm ⁻¹		< 8
Pulsewidth ¹⁾ , ps		~ 10
Divergence ¹⁾ , mrad		≤ 2
Cooling		Air-Water
Electrical service		100...240 V, 50/60 Hz, ≤ 1000 W
Dimensions, mm:		
Laser Head (LxWxH)		1200 x 700 x 180
Power Supply (WxDxH)		460 x 330 x 180

* Specifications are subject to change without notice.

¹⁾ Specified at 800 nm.



PXT100 typical efficiency curve.



PXT100 outline drawing.