

PhotoSonus X

NEW



PhotoSonus X is a perfect solution for photoacoustic imaging. It has high output energy of more than 50 mJ at the peak in a broad wavelength tuning range from 650 to 2600 nm. It operates at 100 Hz pulse repetition rate. This set of parameters is perfect choice for gaining good photoacoustic signal strength and ensuring high data collection rate. Diode pumped laser technology

and well-engineered system design ensures reliability and low-cost system maintenance. System comes with one-year warranty.

PhotoSonus X has fiber bundle connector with safety interlock. Bundle connector adapter and beam size are adapted to fiber bundle input ferule dimensions.

PhotoSonus X can be certified for clinical photoacoustic applications.

High Output Power DPSS Tunable Laser for Photoacoustic Imaging

FEATURES

- ▶ Hands-free wavelength tuning from 670 to 1063 nm and 1064 – 2600 nm
- ▶ High, up to 50 mJ pulse energy from OPO
- ▶ 100 Hz pulse repetition rate
- ▶ Low-cost maintenance
- ▶ Certification ready
- ▶ Integrated DPSS pump laser and OPO into a single housing
- ▶ Fiber bundle holder with safety interlock

OPTIONS

- ▶ Fast wavelength tuning
- ▶ Lower energy cost-effective version. Contact Ekspla for details

PERFORMANCE

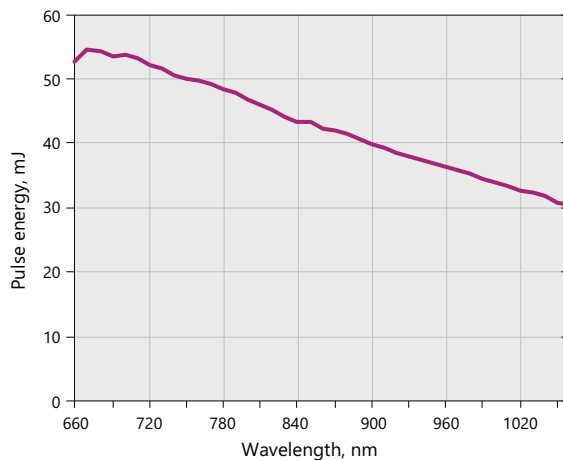


Fig 1. Typical output pulse energy of PhotoSonus X laser

SPECIFICATIONS

Model	PhotoSonus X
OPO	
Wavelength range	
Signal	670–1063 nm
Idler	1064–2600 nm
Pulse repetition rate ¹⁾	100 Hz
Pulse duration ²⁾	2–5 ns
Linewidth	<10 cm ⁻¹
Typical beam diameter ³⁾	4 mm ⁴⁾
PHYSICAL CHARACTERISTICS	
Unit size (W × L × H)	400 × 551 × 162 mm
Power supply size (W × L × H)	2 units, 471 × 391 × 147 mm each
Umbilical length	2.5 m
OPERATING REQUIREMENTS	
Cooling	stand alone chiller
Room temperature	18–27 °C
Relative humidity	20–80 % (non-condensing)
Power requirements	90–240 V AC, single phase 50/60 Hz
Power consumption	< 2 kW

- ¹⁾ Inquire for other pulse repetition rates.
- ²⁾ FWHM measured with photodiode featuring 1 ns rise time and 300 MHz bandwidth oscilloscope.
- ³⁾ Beam diameter is measured at 800 nm at the FWHM level and can vary depending on the pump pulse energy.
- ⁴⁾ Adjustable with internal telescope.



OUTLINE DRAWINGS

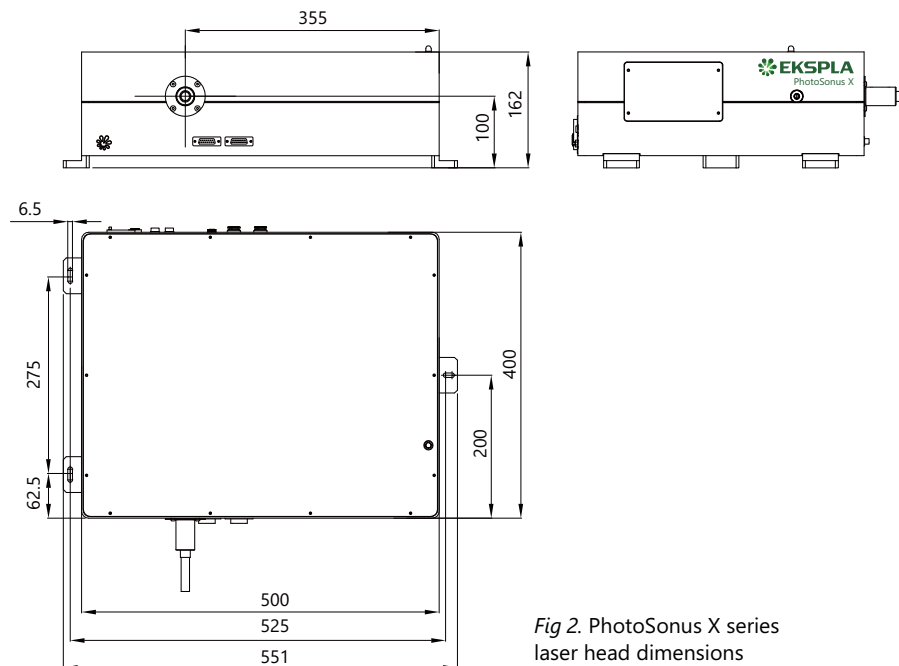


Fig 2. PhotoSonus X series laser head dimensions

Note: Laser must be connected to the mains electricity all the time. If there will be no mains electricity for longer that 1 hour then laser (system) needs warm up for a few hours before switching on.