

PhotoSonus



Following the demand of high output energies in the photoacoustic market for imaging larger volumes of tissue, PhotoSonus, a updated high energy tunable laser source for photo-acoustic imaging is introduced. Time-tested Ekspla nanosecond pump laser, parametric oscillator, power supply and cooling unit are integrated in a single robust housing to provide mobility, ease of use and low maintenance cost.

Highly flexible PhotoSonus platform makes it easy to be integrated and used in a photoacoustic imaging system: it is fully motorized and computer controlled, have user

trigger outputs /inputs and special functions as fast tuning between OPO wavelengths. Parametric oscillator generates output energies up to 180 mJ at peak of wide wavelength tuning range (650 – 1064 nm). Customizable and interlocked fiber bundle connector ensures safety and ability to fit various size fiber bundles.

For customers who demand even higher output energy, we are introducing PhotoSonus with **High Energy option**. 250 mJ output energy is achieved at the peak from OPO at 10 Hz. For more details inquire separately.

**High Energy,
Mobile and Tunable
Wavelength
Laser Source for
Photoacoustic
Imaging**

FEATURES

- ▶ High **180 mJ** output energy
- ▶ Wide tuning range **from 650 to 1064 nm**
- ▶ Higher 250 mJ output energy is optional
- ▶ **10 Hz** or **20 Hz** pulse repetition rate
- ▶ Integrated pump laser, OPO and PSU in single portable unit
- ▶ One year warranty
- ▶ Low maintenance cost
- ▶ Fiber bundle connectors with safety interlock

OPTIONS

- ▶ Full range fast wavelength tuning
- ▶ **High energy (250 mJ)** – inquire separately
- ▶ Rapid switching between OPO and pump wavelength (1064 nm)
- ▶ Access to pump laser wavelengths (1064 / 532 nm)
- ▶ Idler output 1064 – 2300 nm
- ▶ Motorized attenuator
- ▶ Energy meter

SPECIFICATIONS ¹⁾

Parameter	Value
Wavelength range	650 – 1064 nm
Pulse repetition rate	10 or 20 Hz
Pulse duration	3 – 5 ns (FWHM)
Pulse energy stability	< 2 % StDev
Linewidth ²⁾	< 10 cm ⁻¹

¹⁾ Due to continuous improvement, all specifications are subject to change without notice. Find latest updates and specifications at ekspla.com

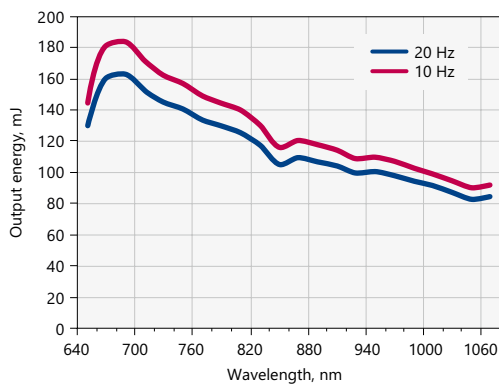
²⁾ In the range 660 – 1064 nm.

POWER SUPPLY

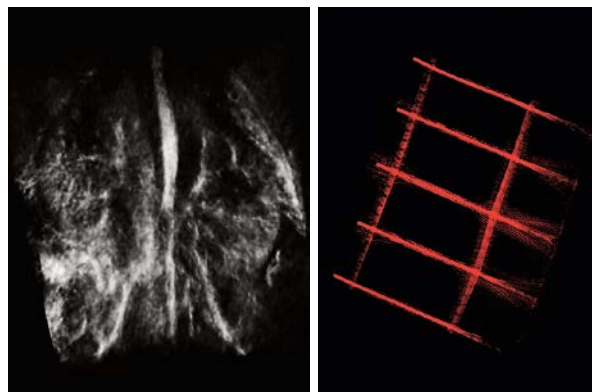
- ▶ Power supply unit integrated
- ▶ Universal line voltage
- ▶ Closed-loop air-water cooled



PERFORMANCE



SAMPLE PHOTOACOUSTIC IMAGES



Courtesy of PhotoSound Technologies, Inc.

DRAWINGS

PhotoSonus outline drawings (mm)

