OPOTEK

Phocus II
Tunable Laser



From the makers of the Phocus product series that revolutionized the tunable laser market for photoacoustic imaging applications, OPOTEK would like to introduce the Phocus II, next generation tunable laser for modern imaging modalities. With wider wavelength ranges, new Fast Tuning control and 100 Hz repetition rates, the end-user can acquire data in real-time, image endoscopically with better signal averaging and tune as fast as 50 ms between wavelengths.

APPLICATIONS

- External Photoacoustic Imaging
- Endoscopic Photoacoustic Imaging
- Photodynamic Therapy (PDT)
- *Any application requiring tunable, high energy or high rep rate, pulsed NIR laser light in a mobile form factor*

SYSTEM FEATURES

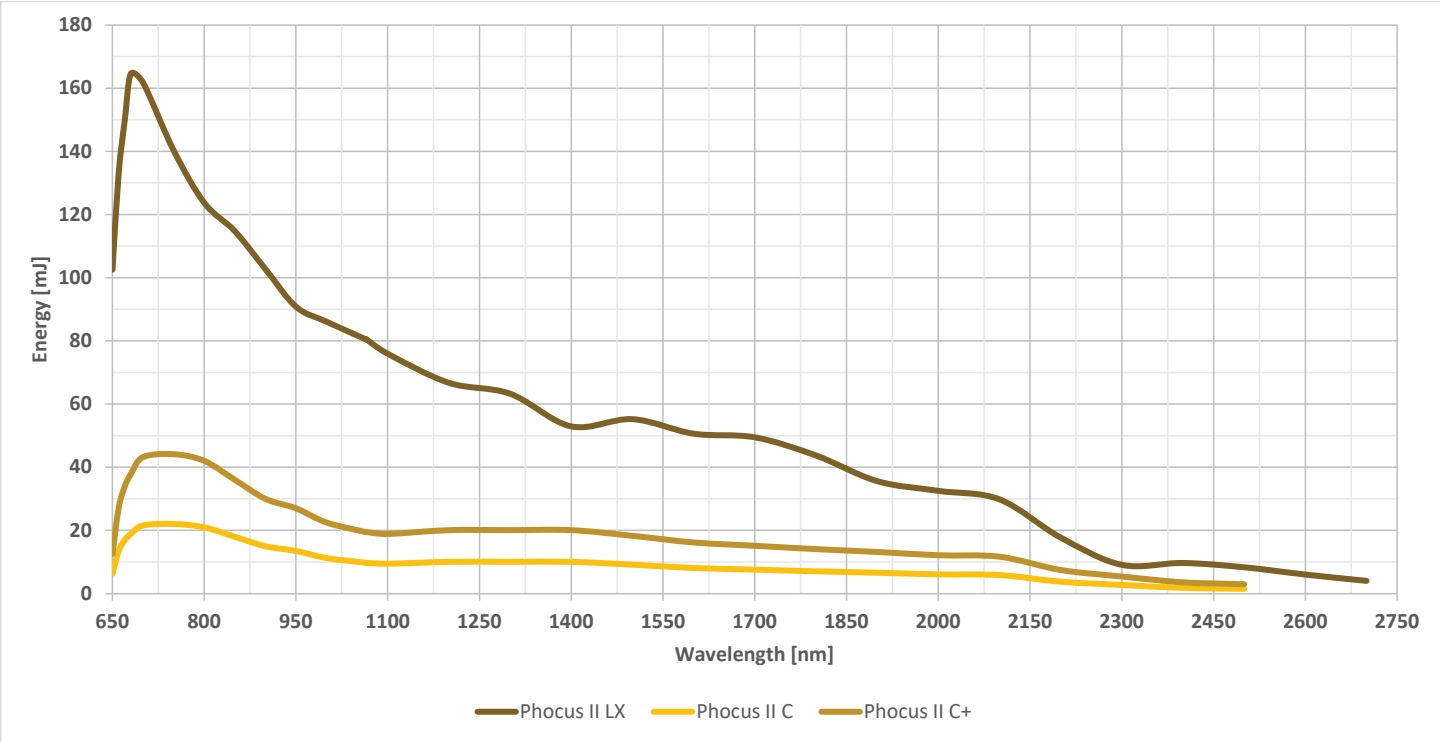
- Vibration isolated, light sealed transportable cart
- Shock-absorbing casters
- Fully integrated power supply, electronics, pump laser and optics
- Flashlamp (high energy) or DPSS (high rep rate) pump laser
- DPSS/Flashlamp and/or Q-Switch external triggering
- Computer controlled via a single USB connection
- Control software and software development kit (SDK)
- Programmable scans
- No factory installation required
- End user accessible alignment verification
- Fast temperature stabilized pump laser and harmonic
- All tunable wavelengths output from a single port
- Access to higher energy 532 nm beam
- All wavelengths accessible without manual configuration changes
- Interlocked Fiber bundle compatible output ports
- REQUIRES fiber bundle for safe operation

OPTIONS

- Real-Time Energy Monitoring
- Motorized Variable Attenuator
- Real-Time Wavelength Monitoring
- Fiber Bundle Delivery
- Fast Tuning (< 50 ms between wavelengths)
- Access to 1064 nm

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SPECIFICATIONS	Phocus II LX	Phocus II C	Phocus II C+
WAVELENGTH RANGE (nm)	650 - 2700	650 - 2500	
Peak OPO Energy (mJ)	*See tuning curves*		
Repetition Rate (Hz)	10	100	100
Pulse to Pulse Stability (%)[1]	2		
Linewidth (cm^{-1})[2]	10 - 15		
Tuning Step Resolution (nm)	< 1.5		
Signal	< 0.5		
Idler	< 1.5		
Pump Energy (mJ)	430 @ 532 nm	75 @ 532 nm	150 @ 532 nm
Pulse Duration (ns)[3]	< 9		
Beam Diameter (mm)[4]	9	5	6.5
Beam Divergence (mrad)[5]	< 2		
Signal Polarization	Horizontal		
Idler Polarization	Vertical		
Full Power 1064 nm Access (mJ)	850	150	300
Residual 532 nm Access (mJ)	100	30	60

[1] RMS @ peak OPO, 99% of shots

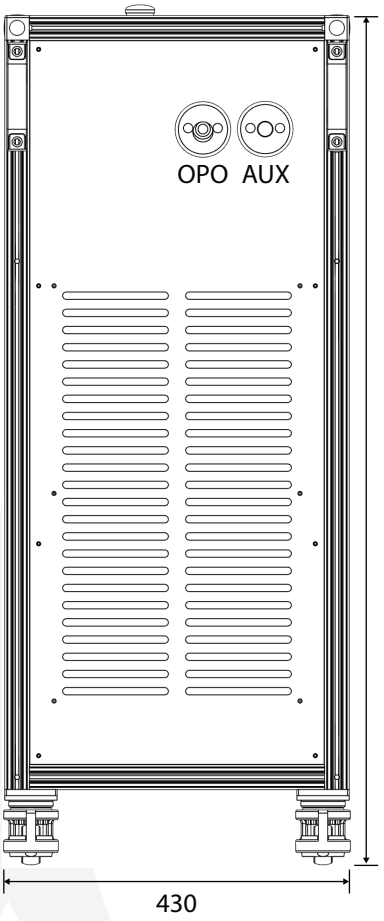
[2] 670 nm and higher

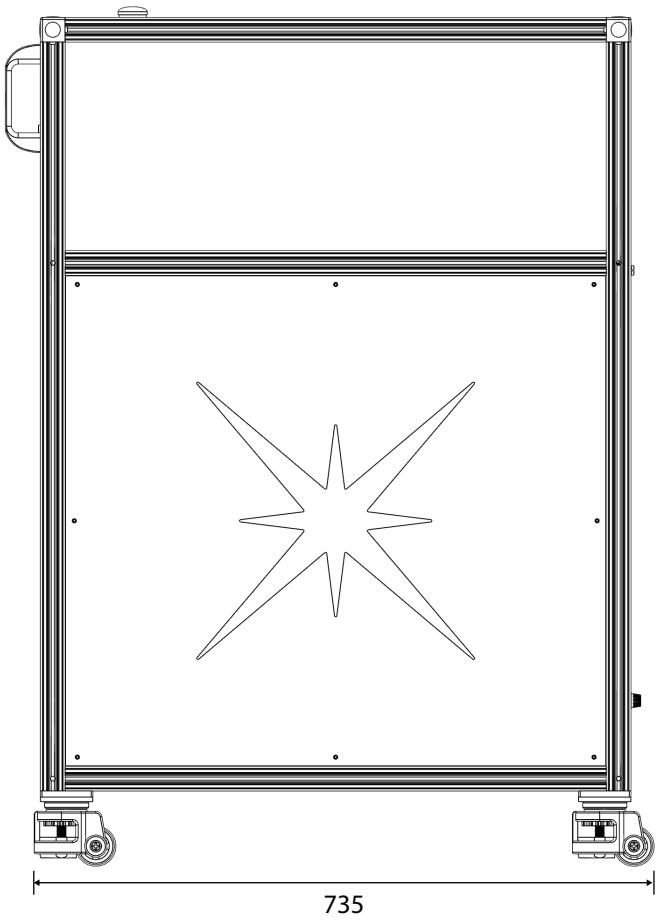
[3] FWHM

[4] At output port

[5] Full angle, at $1/e^2$ of the peak; @ peak OPO

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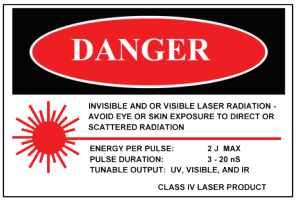




WEIGHT: 68 KG

OPERATING REQUIREMENTS

- 64-82°F / 18-28 °C ambient operating environment
- 100-240 VAC, 50/60 Hz, single-phase 1000 VA



OPOTEK LLC is certified to ISO 9001:2015. VERSION 1.11
Tuning curves represent nominal values.
Dimensions approximate in millimeters.
Due to ongoing product improvements, all specifications are subject to change without notice.

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