



Phocus MOBILE

TUNABLE LASER

Based on the ring-cavity optical parametric oscillator (OPO) technology, the Phocus series represents the optimal light source for photoacoustic imaging applications that require high pulse energies and NIR wavelengths for deep penetration of biological tissue. A customizable, safety-interlocked fiber bundle delivers light from the system to the instrumentation and prevents system operation without fiber attachment.



SYSTEM FEATURES

- Vibration isolated, light sealed transportable cart with shock-absorbing casters
- Temperature controlled, motorized Harmonics (MH)
- Fully integrated pump laser, power supply, control electronics, and OPO
- End user replaceable flashlamp (100 million shot lifetime) and DI cartridge
- Flashlamp and/or Q-Switch external triggering
- No factory installation required
- Alignment verification
- All tunable wavelengths output from a single port
- Interlocked fiber bundle ports
- Standard fiber bundle
- Fiber access to both OPO and residual 532
- Computer controlled via a single USB connection
- Control Software and Software development Kit (SDK)
- Real-time pulse energy monitoring and logging for data normalization (EM)
- Harmonic Auto-Optimization (HAO)
- Fast tuning OPO motor (standard feature on Phocus HE MOBILE systems only)

AVAILABLE OPTIONS AND ACCESSORIES

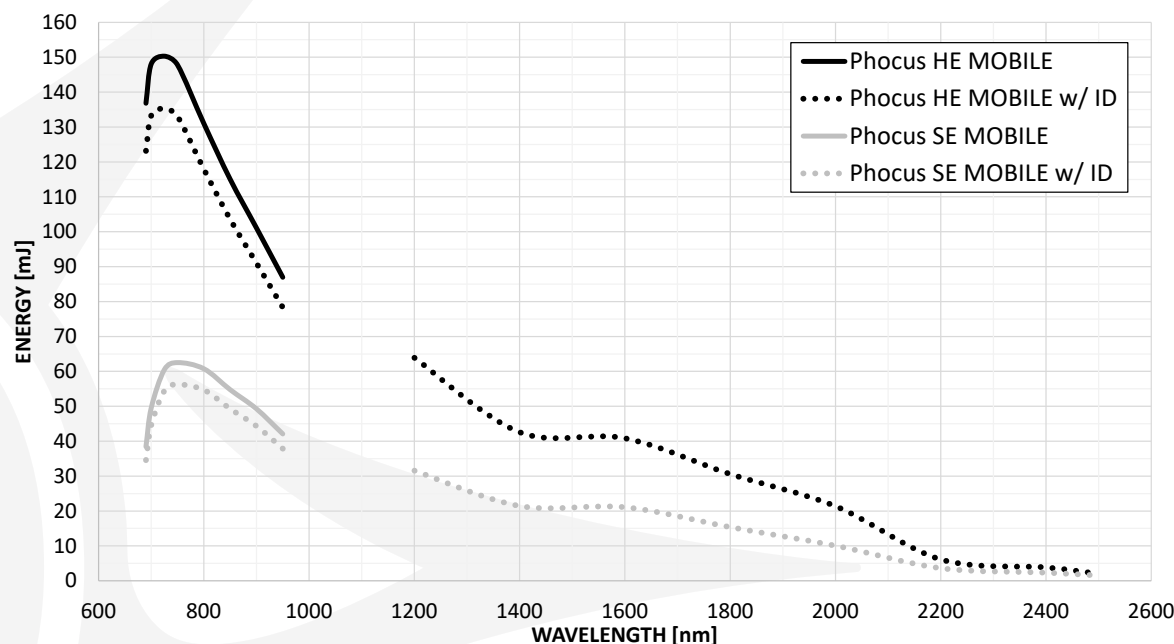
Fast Tuning OPO Motor (FT): Wavelength can be tuned to any value within SIGNAL or IDLER (ID; if available) tuning ranges per pulse.

Extended Tuning Range (ID): Extends the tuning range to 680-950 & 1200-2500nm. Reduces OPO by 15%.

Motorized Variable Attenuator (MVA): Externally mounted and computer controlled. End user removable/installable. Reduces OPO by 10-15% when installed. Can only be used with visible and near-infrared wavelengths.

Custom Fibers available: Custom outputs and lengths available upon request.

Wavemeter (WM): Real-time wavelength monitoring and harmonic auto-optimization.



Phocus MOBILE

OPO SPECIFICATIONS	Phocus SE MOBILE	Phocuse HE MOBILE
Beam Delivery	Fiber Bundle	
Wavelength Range (nm)	690 - 950	
Extended Wavelength Range [ID] (nm)	1200 - 2500	
Peak OPO Energy (mJ) ¹	60	150
Pulse to Pulse Stability (%) ²	< 10	
Pump Laser Residual Energy (mJ)	60 at 532 nm	150 at 532 nm
Linewidth (cm ⁻¹)	10 - 15	
Tuning Resolution (nm)	< 1	
Pulse Duration (ns)	5	

PUMP LASER SPECIFICATIONS

OPO Pump Wavelength (nm)	532	
OPO Pump Energy (mJ)	150	400
Pulse Duration (ns)	6	
Beam Divergence (mrad)	< 0.5	
Pulse to Pulse Stability (%) ³	< 2	
Pulse Repetition Rate (Hz)	20	10

¹ before fiber, no extended wavelength range

² RMS @ peak OPO wavelength, 99% of shots

³ RMS, 99% of shots

DIMENSIONS (all systems)

Dimensions (L x W x H; inches [cm]) 30.00 x 19.00 x 43.00 [76.20 x 48.26 x 109.22]

Weight (lbs [kg]) 280 [127]

OPERATING REQUIREMENTS (all systems)

Cooling System Integrated air-water heat exchanger (include

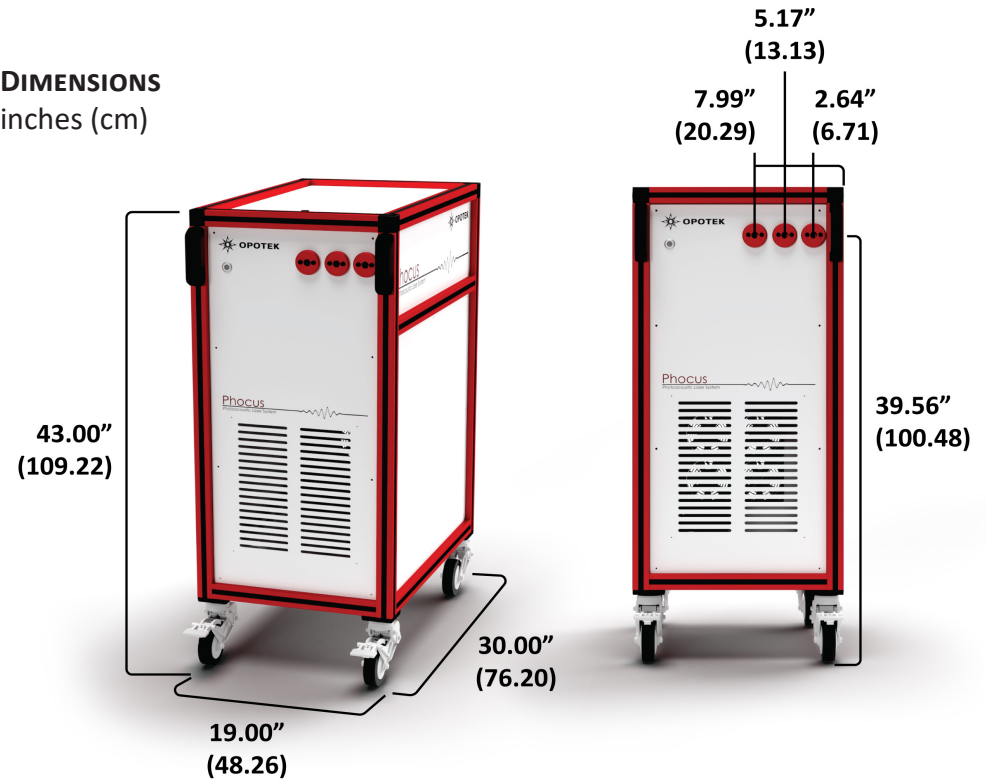
Coolant Distilled water

Temperature 64-82°F / 18-28 °C

Power 100-240 VAC, 50/60 Hz, single phase 1000VAC

DIMENSIONS

inches (cm)



VERSION 4.00

Due to ongoing product improvements, all specifications are subject to change without notice. All tuning curves represent nominal values.

