



KMLabs' **Orthos** ASOPS system

-The first wavelength tunable Ti:Sapphire ASOPS system

Orthos is an ultrafast laser ASOPS system, built based on our successful line of wavelength-tuneable Ti:Sapphire oscillators. It consists of the Griffin Prime as the free-running, MHz-scale oscillator, and the Halcyon Prime as the repetition-rate-stabilized oscillator, set to a controllable offset from the Griffin Prime. The Orthos is equipped with a suite of diagnostics on a common water-cooled baseplate with these oscillators, including an optical coincidence detection setup.

Features

- Independently tunable center wavelength and bandwidth of each oscillator's spectrum
- Tunable pulse duration
- Adjustable repetition rate offset
- Pulse train and power monitors

Applications

- Transient pump-probe spectroscopy
- Time domain THz Spectroscopy
- Coherent optical phonon detection
- Transient thermo-reflectance
- Coherent strain wave propagation
- FTIR spectroscopy

Specification	
Center wavelength	~ 800 nm
Tuneable wavelength range	750-850 nm
Repetition rate	~ 93 MHz
Max mode-locked power	> 500 mW at 800 nm
Pulse duration (based on Fourier transform limit)	< 15 fs
Pulse energy	> 5 nJ
Power stability (over 8 hours after warm-up)	< 1% RMS, at $\pm 1^\circ\text{C}$ room temperature stability
Timing jitter (measured electronically)	< 150 fs RMS
Repetition rate offset	1-20 kHz
Delay window	10.7 ns
Dimensions (mm)	1370 L, 880 W, 178 H

