

# Continuum<sup>®</sup>

## Sunlite™ EX OPO

The Next Generation of OPOs



### SUNLITE™ EX OPO FEATURES & BENEFITS

*Widest tuning range with  
no degeneracy gap  
( 445 - 1750 nm )*

*Narrow linewidth over entire  
visible tuning range ( < 0.075 cm<sup>-1</sup> )  
US Patent # 5,406,409*

*Wavelength extension available:  
FX-1 (222.5 nm - 450 nm)*

*Hermetically sealed,  
desiccated, and temperature  
stabilized crystal housings*

*Intuitive computer control via  
Windows® operating platform  
with RS-232 interface*

TUNABLE OPO

SUNLITE EX™ OPO SPECIFICATIONS

DESCRIPTION	Precision II Model Pump Laser		
	PL 8000	PL 9010	PL 9020
Pump Energy (mJ) @ 355 nm	300	350	300
Repetition Rate (Hz)	10	10	20
Tuning Range (nm)	445-1750		
Linewidth (≤ cm <sup>-1</sup> )	0.075		
Pulsewidth (nsec)	3-6		
Accuracy <sup>1</sup> (±nm)	0.05		
Precision <sup>2</sup> (±nm)	0.001		
Energy (at peak, mJ)	40	50	40
Beam Pointing Stability (±μrad)	50	50	75
Divergence <sup>3</sup> (mrad)	< 1.5	< 1.5	< 2.0
Energy Stability <sup>4</sup> (±%)	10	10	15
Polarization, vertical (%)	99	99	99
Energy (mJ) vs. Wavelength			
	5 @ 450 nm	6 @ 450 nm	5 @ 450 nm
	22 @ 500 nm	27 @ 500 nm	22 @ 500 nm
	40 @ 550 nm	50 @ 550 nm	40 @ 550 nm
	22 @ 600 nm	27 @ 600 nm	22 @ 600 nm
	22 @ 650 nm	27 @ 650 nm	22 @ 650 nm
	7 @ 700 nm	9 @ 700 nm	7 @ 700 nm
Beam Diameter (mm)	~ 4-6	~ 4-6	~ 4-6
Beam Shape <sup>5</sup>	Round ±20%	Round ±20%	Round ±20%
Long - Term Frequency Stability <sup>6</sup>	< 1 x linewidth	< 1 x linewidth	< 1 x linewidth
Power Drift <sup>7</sup> (±%)	< 10	< 10	< 10

The Sunlite™ EX OPO sets the highest performance standards.

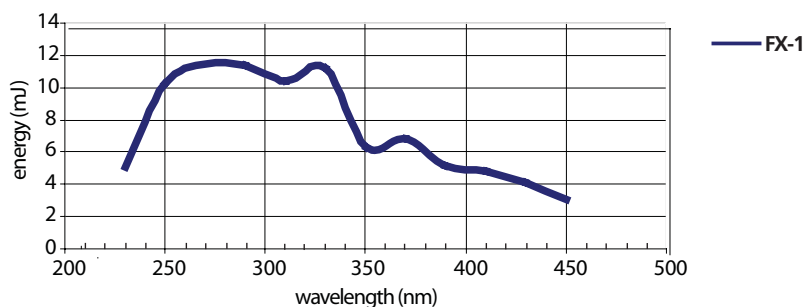
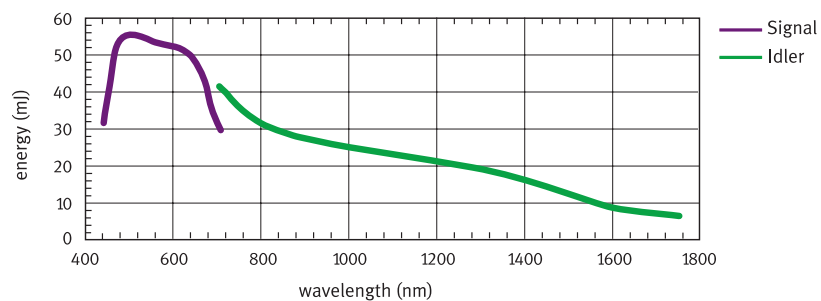
Quality craftsmanship and engineering define Continuum's products. Sunlite™ EX OPO is the workhorse of the modern scientific laboratory. The Sunlite™ EX is the ideal choice for scientists seeking an alternative to dye lasers, or for the convenience of broad tunability in a solid state device without performance compromise. Sunlite™ EX is an unbeatable combination of narrow linewidth, broad tunability, high energy, and high conversion efficiency, all in a compact and easy to operate package.

### NOTES

1. Accuracy of electronic readout
2. Mechanical precision while scanning
3. Full angle for 86% (1/e<sup>2</sup>)
4. Shot-to-shot for 99.9% of pulses
5. Near field, < 1 meter
6. Over a 3 hr period with < 4°F temperature change
7. Over an 8 hr period with < 4°F temperature change

All specifications at 550 nm unless otherwise noted.  
As a part of our continuous improvement program, all specifications are subject to change without notice.

## TYPICAL SUNLITE™ EX OPO's PERFORMANCE WITH SEEDED PL9010



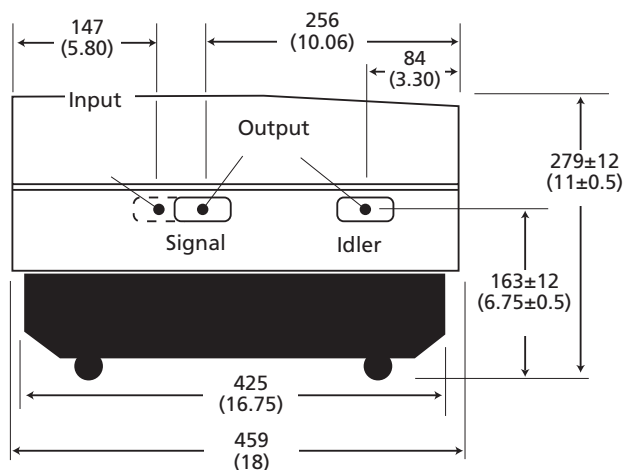
### APPLICATIONS:

- High Resolution Spectroscopy
- Emission Studies
- Pump-Probe Experiments
- Combustion Studies
- Fluorescence Studies
- Multi-Photon Excitation
- Nonlinear Optical Materials
- Remote Sensing
- Photolysis
- LIDAR
- CARS

## SUNLITE™ EX OPO PHYSICAL LAYOUT

All dimensions in mm (inches).

Output view



Side view

