

Chameleon Compact OPO

Wavelength Extension for Chameleon Ti:Sapphire Lasers

The Compact Chameleon OPO (optical parametric oscillator) is a wavelength extension up to 1600 nm giving a combined tuning range of 680-1600 nm when used with a Chameleon Ultra or Vision laser as a pump source.

The OPO signal output is tunable between 1000 and 1600 nm without optics changes. An idler option is also available to access wavelengths from 1750 – 4000 nm

The pump laser wavelength and OPO wavelength can be tuned independently, enabling two color imaging or pump/probe applications. Specifically, the laser pump wavelength can be varied between 740 nm and 880 nm with simultaneous independent tuning of the OPO in the IR.



FEATURES & BENEFITS

- Fully automated for hands-free wavelength tuning
- Independent wavelength tuning of pump laser and OPO for two color experiments
- Fan poled OPO crystal for flexible pump wavelength tuning
- Full tuning range without change of optics or re-alignment
- Gap-free overlap with tuning from Chameleon Ti:Sapphire
- Effortless tuning over water absorption bands
- Idler option available for access up to 4000 nm

APPLICATIONS

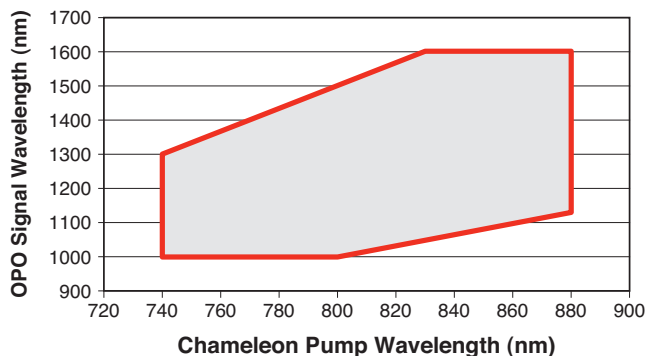
- Multiphoton Excitation (MPE) Microscopy
- Non-linear Optics
- Time Resolved Spectroscopy
- CARS/SRS Microscopy
- Third Harmonic Generation Imaging

SPECIFICATIONS	Chameleon Compact OPO Pumped by Chameleon Ultra II	Chameleon Compact OPO Pumped by Chameleon Vision II
Tuning Range ¹ (nm)	1000 to 1600	1000 to 1350
Pump Wavelength Range (nm)	740 to 880	760 to 880
Output Power, Signal ² (mW)	>700	>700 ³
Pump Output Power Available ⁴ (%) when pumping OPO in bypass mode		~15 ~95
Pulsewidth (fs) (typical)	200	
M ² (typical)	1.1	
Beam Diameter (mm)	2	
Beam Divergence (mrad) (typical)	0.5	
Polarization	Horizontal	
Repetition-Rate (MHz)	80 (locked to pump laser)	
Dimensions (L x W x H)	520 x 369 x 158 mm (20.5 x 14.5 x 6.2 in.)	
IDLER OPTION		
Additional Tuning Range ^{1,5} (nm)	1750 to 4000	
Idler Output Power ⁶ (mW)	>100	
MAXIMUM IR OPTION		
Additional Signal Output Power ⁷ (%)	15	

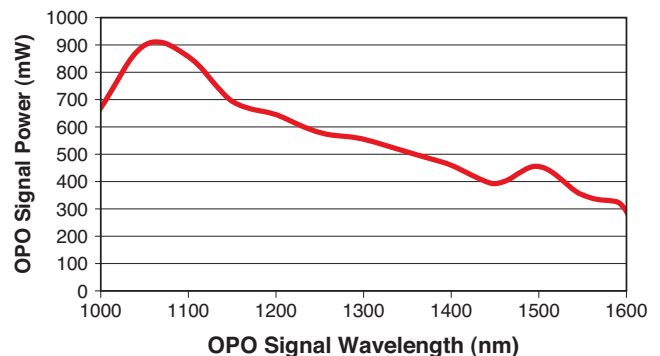
1 Tuning range depends on Pump Wavelength.
 2 At maximum of pump and OPO signal tuning curve.
 3 Vision Dispersion settings optimized for OPO.
 4 Typical. Please refer to Chameleon datasheet for respective power specifications. Pump output not available with Max IR option.
 5 In addition to OPO signal output range. All other specifications are unaffected.
 6 At maximum of pump and OPO idler tuning range .
 7 No access to pump beam.

TYPICAL PERFORMANCE DATA

Chameleon Ultra II and Compact OPO Tuning Range



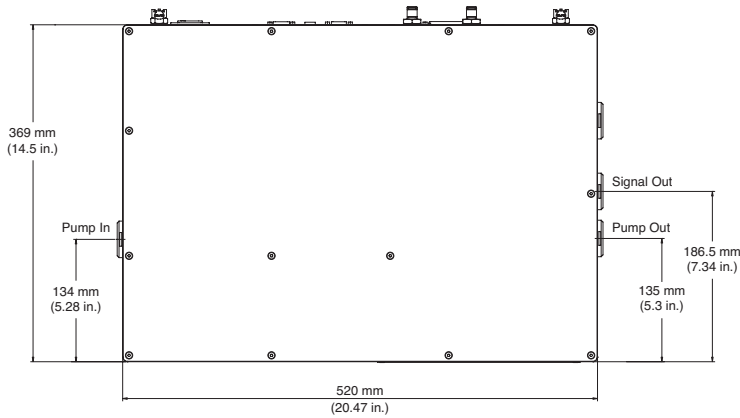
Chameleon Compact OPO Output Power (typical)



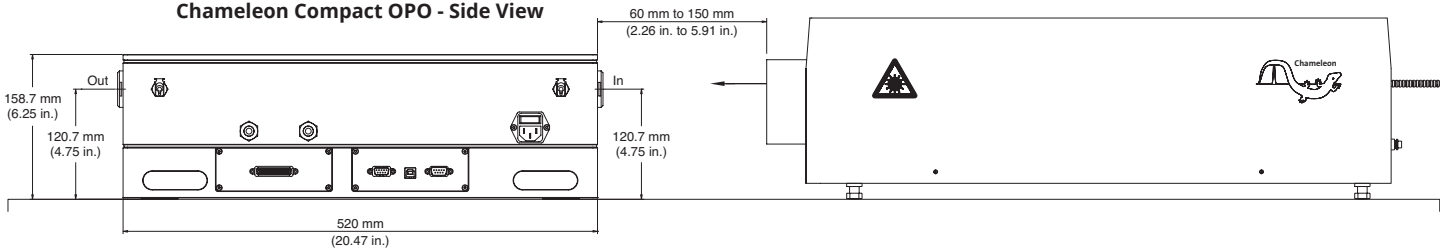
MECHANICAL SPECIFICATIONS

Chameleon Compact OPO

Chameleon Compact OPO - Top View



Chameleon Compact OPO - Side View



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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all Monaco Chameleon Systems. For full details of this warranty coverage, please refer to the Service section at www.Coherent.com or contact your local Sales or Service Representative. MC-060-07-0M1118Rev.C Copyright ©2018 Coherent, Inc.

