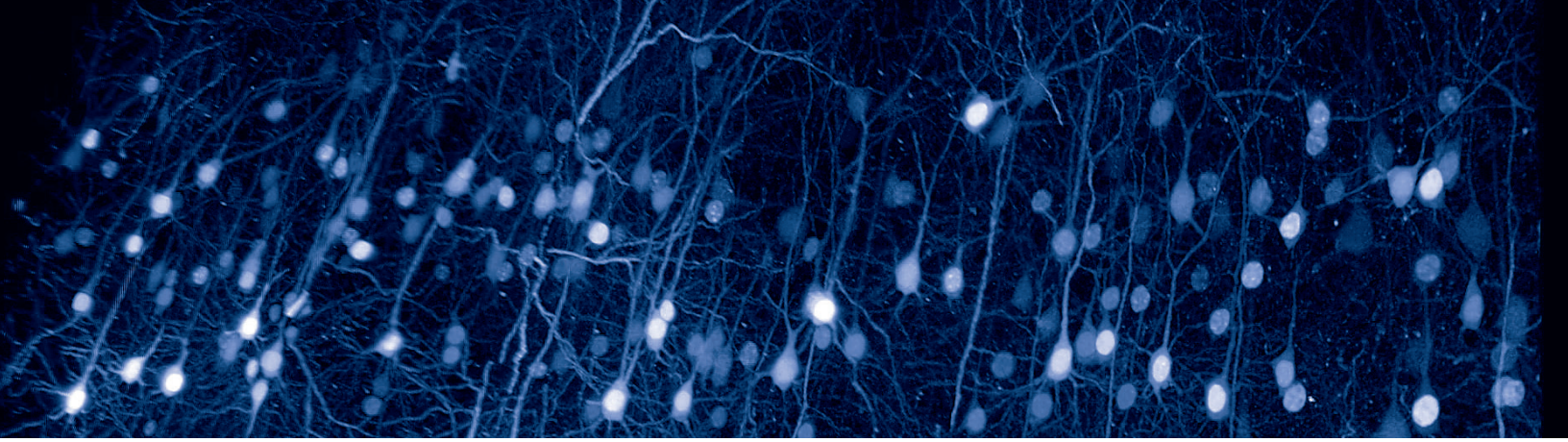


Chameleon Compact OPO-Vis

Wavelength Extension for Chameleon Ti:Sapphire Lasers with Frequency Doubling

The Chameleon Compact OPO VIS automated wavelength extension for the Chameleon Ti:Sapphire family of lasers provides unique pump and OPO wavelength flexibility, and extends the wavelength coverage from the visible through the near IR in a one-box solution.

Visible and UV wavelengths are generated via second harmonic conversion of the Ti:Sapphire and OPO Signal beams.

Along with the Chameleon pump laser, a combined gap-free tuning range of 340-1600nm may be accessed. The laser pump wavelength can be varied between 740 nm and 880 nm with simultaneous independent tuning of the OPO in the IR, with the OPO signal being tunable between 1000 and 1600 nm without optics changes.

An option for idler output further enables tuning from 1750 nm to 4000 nm. The entire system is completely alignment free, fully automated and computer controlled.

FEATURES & BENEFITS

- Fully Automated for hands-free wavelength tuning
- Wavelength extension enables tuning into the UV, Visible and IR
- Independent wavelength tuning of pump for dual color experiments
- Full tuning range without change of optics or re-alignment
- Gap-free tuning from 340 nm to 1600 nm
- Idler option available for tuning up to 4 µm

APPLICATIONS

- Non-linear Optics
- Time Resolved Spectroscopy
- Photoluminescence Studies
- Multiphoton Excitation (MPE) Microscopy
- FRET/FLIM Microscopy

COHERENT®
Superior Reliability & Performance

SPECIFICATIONS

OPO Bypass Mode	**Chameleon Laser**		**Chameleon SHG**	
Tuning Range (nm)	680 to 1080		340 to 540	
Output Power[2]	~95%[5]		>1000 mW	
Pulse Width (fs) (typical)	140		140	
M^2 (typical)	<1.1		<1.1	
OPO Operation	**Chameleon Laser**	**OPO**	**Chameleon SHG**	**OPO SHG**
Tuning Range (nm)	740 to 880[6]	1000 to 1600[7]	370 to 440[6]	500 to 800[7]
Output Power[3] (mW)	~15%[5]	>700 mW	>50 mW	>110 mW
Pulse Width[2] (fs) (typical)	140	200	140	200
Polarization	Horizontal			
Repetition Rate (MHz)	80			
Dimensions (L x W x H)	768 x 388 x 158 mm (30.2 x 15.3 x 6.2 in.)			

IDLER OPTION

Tuning Range (nm)	1750 to 4000[7]
Idler Output Power[4] (mW)	>100

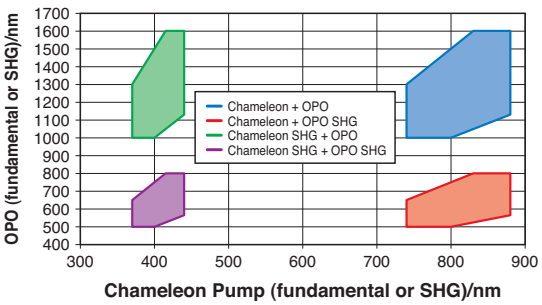
WAVELENGTH COMBINATION TABLE

Output Port	**Output Scheme**					
	I	II	III	IV	V	VI
Chameleon Fundamental - High Power (680 nm to 1080 nm)	•					
Chameleon Fundamental - Low Power (740 nm to 880 nm)			•	•		
Chameleon Fundamental - Depleted		•			•	•
Chameleon SHG - High Power (340 nm to 540 nm)		•				
Chameleon SHG - Low Power					•	•
OPO Signal (1000 nm to 1600 nm)			•		•	
OPO Signal - Depleted				•		•
OPO Signal SHG (500 nm to 800 nm)				•		•
OPO Idler			•	•	•	•

1 All specifications are shown for pumping with Chameleon model Ultra II. Other pump options available.
2 At peak of tuning curve.
3 At peak of pump laser wavelength and OPO wavelengths.
4 At maximum of pump and OPO idler tuning range.
5 Typical. Please refer to Chameleon datasheet for respective power specifications.
6 Typical, Chameleon Ultra II.
7 Pump wavelength dependent.

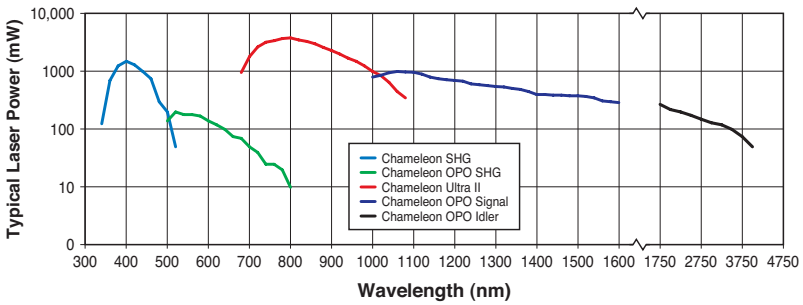
TYPICAL PERFORMANCE DATA

Chameleon Compact OPO-Vis Tuning Range



Possible wavelength combinations are in shaded area

Chameleon Compact OPO-Vis Power vs. Wavelength



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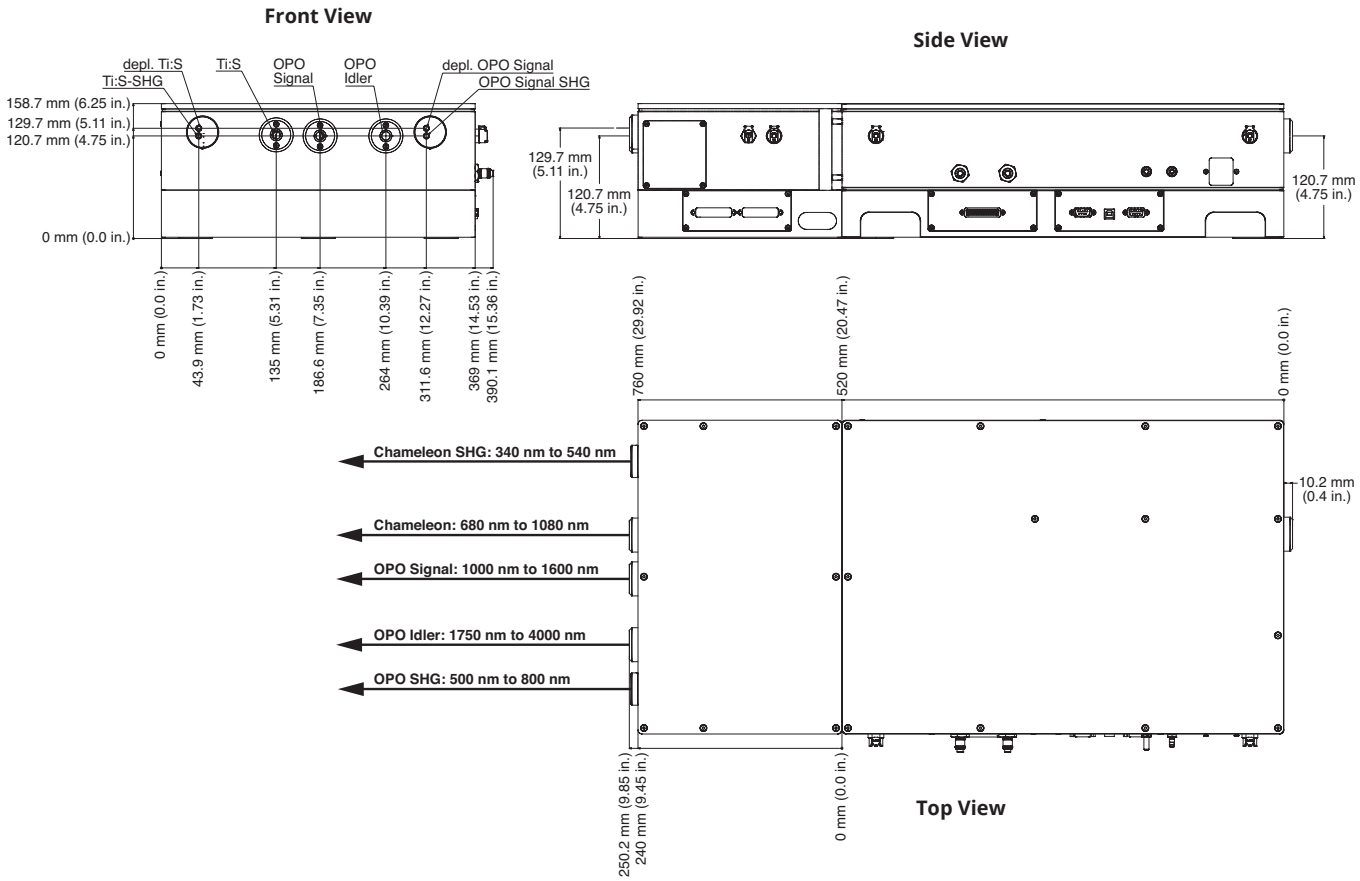
MECHANICAL SPECIFICATIONS

Chameleon Compact OPO-Vis



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