

OPerA Solo

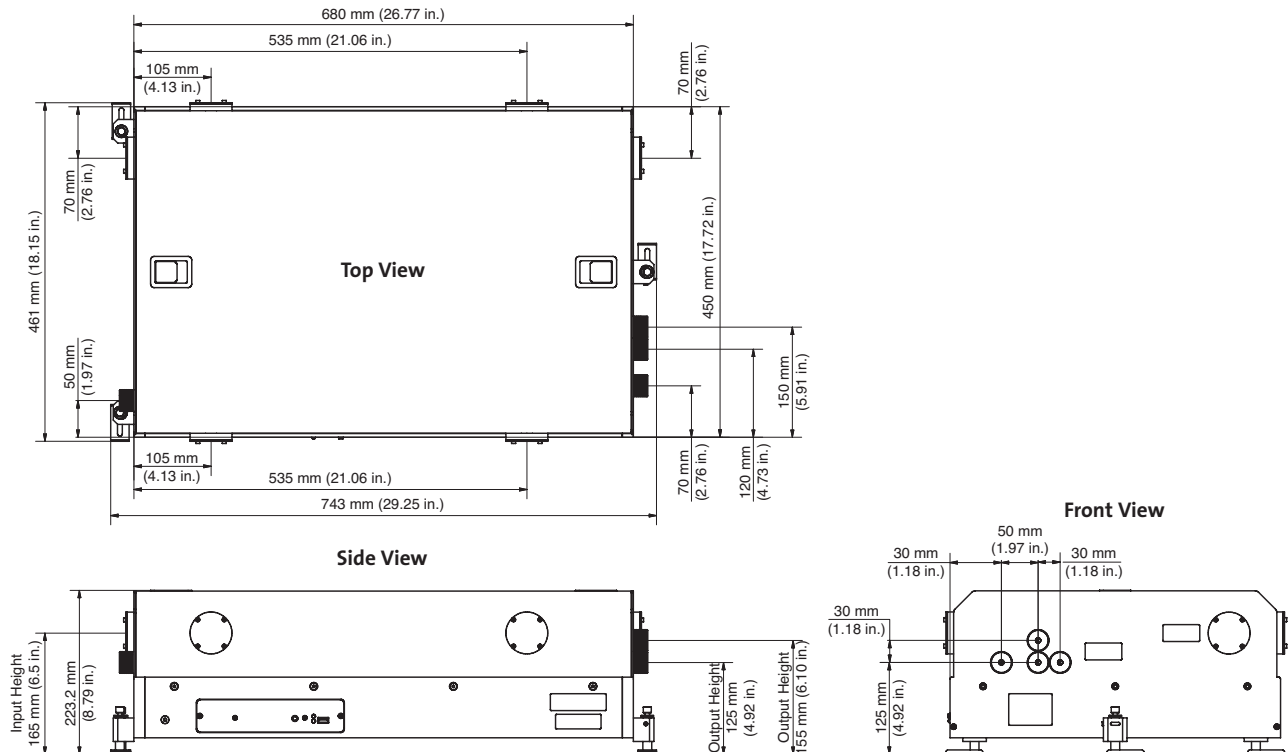
Ultrafast Optical Parametric Amplifier

Features

- Fully integrated, 1-box system
- Computer-controlled tuning
- Whitelight-seeded pre-amp for lowest noise
- “Fresh pump” configuration for optimum spatial, temporal and spectral mixing performance
- Models for <130 fs and <40 fs
- Standard integrated options for 240 nm to 20,000 nm
- Compatible with Legend™, Legend Elite™ and Libra™ amplifiers
- Multiple OPAs can be pumped with one Ti:Sapphire



Mechanical Specifications



Superior Reliability & Performance

OPerA™ Solo

Ultrafast Optical Parametric Amplifier

System Specifications ^{1,2}	Beam	Wavelength Range	Pulse Energy		Polarization	
			<50 fs pump	<130 fs pump		
OPerA Solo ⁴	Signal	1140 to 1600 nm	220 µJ (S + I)		V	
	Idler	1600 to 2600 nm			H	
Options ³	SH Package	SHI	800 to 1150 nm	>30 µJ	>50 µJ	V
		SHS	580 to 800 nm	>30 µJ	>50 µJ	V
	SF Package	SFI	533 to 580 nm	>30 µJ	>50 µJ	V
		SFS	480 to 533 nm	>40 µJ	>70 µJ	V
	FH Package	FHI	400 to 480 nm	>5 µJ	>10 µJ	H
		FHS	290 to 400 nm	>5 µJ	>10 µJ	H
	SHSF Package	SH (SFI)	266 to 295 nm	>3 µJ	>8 µJ	H
		SH (SFS)	240 to 266 nm	>3 µJ	>8 µJ	H
	NDFG Package	NDFG1	2.6 to 11 µm ⁵	>2 µJ @ 4 µm	>8 µJ @ 4 µm	H
				>0.5 µJ @ 9 µm	>1.5 µJ @ 10 µm	
		NDFG2	5 to 20 µm ⁶	>1 µJ @ 5 µm	>4 µJ @ 5 µm	H
					>0.1 µJ @ 15 µm	>0.3 µJ @ 15 µm

¹ All specifications are based on pumping with 1 mJ from Legend/Legend Elite-F, Legend/Legend Elite USP or Libra at 1 kHz (contact factory for other pump systems).

² Energy scales linearly with pump in range 0.2 mJ to 4.5 mJ for <130 fs pump and 0.2 mJ to 3 mJ for <50 fs pump.

³ Energies given at peak of tuning curves. SH/SF/FH/SHSF wavelength extension packages listed include all mixing crystals listed in preceding options (e.g., SHSF Package includes crystals, etc., to tune from 240 to 1140 nm). Contact factory for tuning down to 190 nm.

⁴ Signal pulse width is (0.7 to 1.0) x pump for <130 fs pump duration, (1 to 1.2) x pump for <50 sec. pump duration.

⁵ NDFG1 tuning range is 2.6 µm to 9 µm for <50 fs pump. NDFG1 pulse width is (1 to 1.5) x pump for <130 fs pump and (1.5 to 2) x pump for <50 fs pump.

⁶ NDFG2 tuning range is 5 µm to 15 µm for <50 fs pump. NDFG2 pulse width is (1 to 2) x pump for <130 fs pump.

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 OPerA Solo amplifiers. 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.



www.Coherent.com

Coherent, Inc.
 5100 Patrick Henry Drive
 Santa Clara, CA 95054
 phone (800) 527-3786
 (408) 764-4983
 fax (408) 764-4646
 e-mail tech.sales@Coherent.com

Benelux +31 (30) 280 6060
 China +86 (10) 8215 3600
 France +33 (0)1 8038 1000
 Germany +49 (6071) 968 333
 Italy +39 (02) 31 03 951
 Japan +81 (3) 5635 8700
 Korea +82 (2) 460 7900
 UK +44 (1353) 658 833