WHITE DWARF
OPCPA 5W powered by Coherent

CLASS 5 Photonics

ACCELERATE YOUR RESEARCH

The White Dwarf OPCPA powered by Coherent is a high-performance femtosecond laser fully integrated in a compact housing. Our latest version offers wavelength tunability and a dual output option for pump-probe spectroscopy making it the most flexible non-colinear OPA on the market.

AVERAGE POWER
5 W

WAVELENGTH OPTIONS
650 nm — 2000 nm

PULSE DURATION
10 fs — 50 fs

PUMPED BY
Coherent Monaco — 60 W

REPETITION RATE
750 kHz — 10 MHz

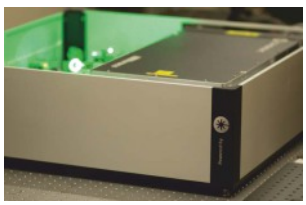
- in-vivo brain imaging
- Multiphoton absorption imaging
- Spin dynamics
- Superconductivity
- Deep optical imaging of tissue
- Carrier dynamics of solid materials
- Photosynthesis
- Optogenetics

PRODUCT SPECIFICATIONS

	for multi-photon microscopy		for ultrafast material science	for few-cycle pulses	
	WD-1300	WD-1300-dual	WD-800-tunable-dual	WD-800	WD-2000
Central wavelength	1300 nm	Two synchronized outputs: 960 and 1300 nm, or 1300 and 1700 nm	Two synchronized outputs: I: 650 - 2000 nm II: 650 - 960 nm	800 nm	2000 nm
Pulse duration (FWHM)	< 50 fs	< 50 fs	I: < 100 fs II: < 30 fs	< 9 fs	< 30 fs
Average power	> 4 W	> 2 W each output	> 2 W each output	> 5 W	> 5 W
Pulse energy	> 4 µJ	> 2 µJ each output	> 2 µJ each output	> 5 µJ	> 5 µJ
Repetition rate	single-shot to 10 MHz	single-shot to 10 MHz	single-shot to 4 MHz	single-shot to 10 MHz	single-shot to 10 MHz
Beam quality M2	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Power stability (12 hrs)	< 1 %	< 1 %	< 1 %	< 1 %	< 1 %
Dimensions	80 cm x 80 cm	80 cm x 120 cm	80 cm x 120 cm	80 cm x 80 cm	80 cm x 120 cm
SHG, THG or mid-IR	on request				
Pump laser incl.	Coherent Monaco 60 W	Coherent Monaco 60 W	Coherent Monaco 60 W	Coherent Monaco 60 W	Coherent Monaco 60 W
CEP stability				on request	on request

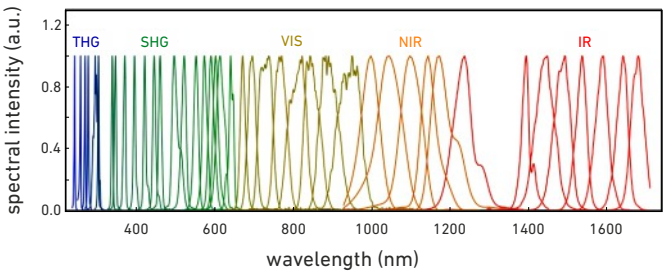
HIGHLIGHTS

Our White Dwarf OPCPA powered by Coherent has its pump laser already on board to enter the next level of stability. We integrate the Coherent Monaco industrial femtosecond laser on a small footprint with state-of-the-art White Dwarf OPCPA technology to bring industrial performance to scientific output parameters. The White Dwarf OPCPA can be equipped as dual output system to offer pump-probe capabilities for ultrafast material science or as fixed wavelenght version for high-volume 3D bio-imaging.

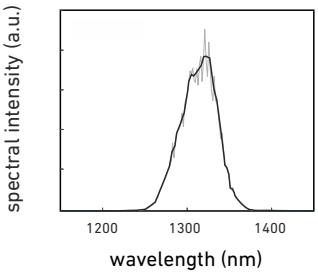


PERFORMANCE EXAMPLES

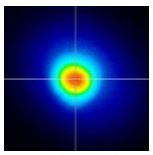
spectra WD-800-tunable



spectrum WD-1300

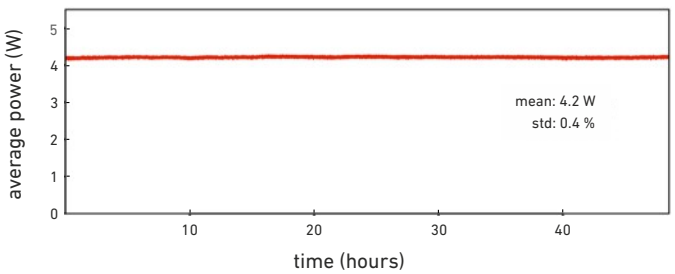


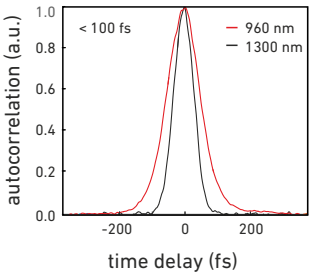
Beam profile



$M^2x < 1.2$
$M^3y < 1.3$

power stability at 2 MHz





EU +49 40 228 631 65
US +1 650 353 97 00
web www.class5photonics.com

mail info@class5photonics.com
address Notkestrasse 85
22607 Hamburg
Germany