

SUPERNOVA

OPCPA 100W



DISCOVER NEW FRONTIERS

The **Supernova** OPCPA is the most powerful tunable femtosecond laser on the market.

Our award-winning flagship product is designed for the ultimate demanding applications offering extreme power, ultrashort pulses, dual output versions and optional CEP stability.

AVERAGE POWER

20 W ————— 100 W

WAVELENGTH OPTIONS

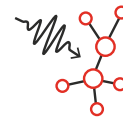
800 nm ————— 3000 nm

PULSE DURATION

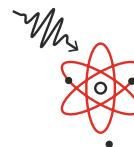
9 fs ————— 50 fs

REPETITION RATES

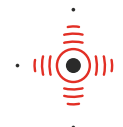
20 kHz ————— 100 kHz



- Cluster and gasphase dynamics



- Attosecond dynamics in solids and gases



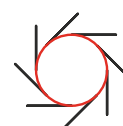
- Inspection in EUV lithography



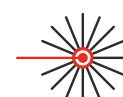
- Strong-field physics
- Relativistic plasma physics



- Free-electron lasers



- Particle accelerators



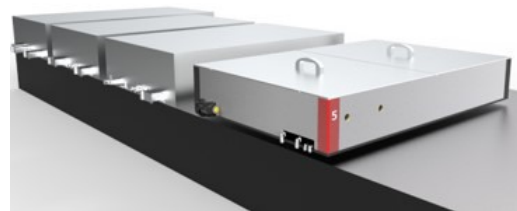
- Laser user facilities

PRODUCT SPECIFICATIONS

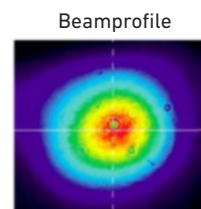
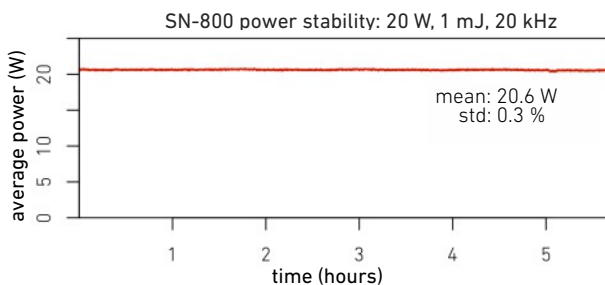
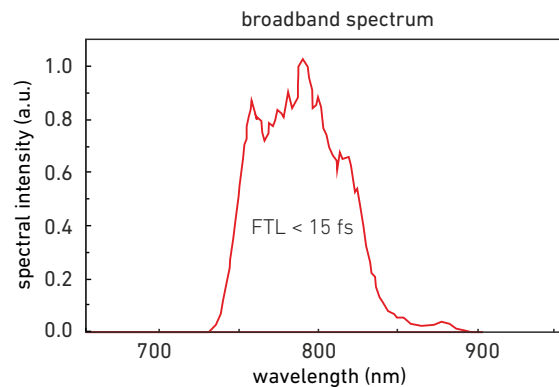
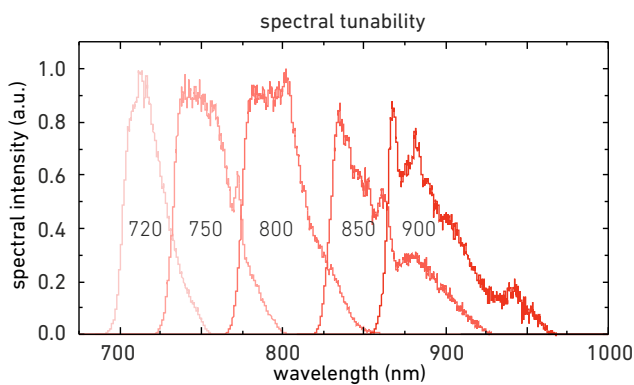
	SN-800	SN-1550	SN-2200	SN-3000
Central wavelength	800nm	1550 nm	2200 nm	3000 nm
Pulse duration (FWHM)	< 9 fs	< 35 fs	< 30 fs	< 50 fs
Average power	> 20 - 100 W	> 20 - 100 W	> 20 - 100 W	> 20 - 100 W
Pulse energy	> 1 mJ	> 1 mJ	> 1 mJ	> 1 mJ
Repetition rate	20 - 100 kHz	20 - 100 kHz	20 - 100 kHz	20 - 100 kHz
CEP stability	on request	on request	on request	on request
HHG extension	on request	on request	on request	on request
Pump laser	300 W - 1 kW	300 W - 1 kW	300 W - 1 kW	300 W - 1 kW
Supernova HE at 1 kHz	on request	on request	on request	on request

HIGHLIGHTS

The **Supernova** OPCPA is our award-winning flagship product with extremely short pulse durations and a high temporal contrast. Wavelength flexibility, options for multiple outputs and CEP stability allow tailoring it to custom multi-color experiments at highest average power and unprecedented stability over days. This allows leading scientists to push research to new limits. The product is also available as high energy version (HE) with multi-millijoule pulse energies, pumped by Yb:YAG thin-disk lasers.



PERFORMANCE EXAMPLES



Measurement data are examples. Specifications are subject to change without notice. Copyright 2020 Class 5 Photonics GmbH

